STATISTICS OF AGRICULTURE.

INTRODUCTION.

LAW AUTHORIZING CENSUS.

By the terms of the act of Congress, approved March 3, 1899, the Census Office was charged with the duty of collecting statistics of the resources and products of agriculture. The facts to be collected and arranged in statistical form were described in section 7 of that act as follows:

> The schedules relating to agriculture shall comprehend the following topics: Name of occupant of each farm, color of occupant, tenure, acreage, value of farm and improvements, acreage of different products, quantity and value of products, and number and value of live stock. All questions as to quantity and value of crops shall relate to the year ending December thirty-first next preceding the enumeration.

By this section no provision was made for the collection of statistics pertaining to the number and value of live stock not on farms. In response to urgent requests from the various live-stock associations of the country, an act amendatory to the law relating to the Twelfth Census was approved February 1, 1900, directing the census authorities to collect statistics relating to live stock upon the unfenced public domain, or ranges, of the West and South, and of domestic animals in all the states and territories, in inclosures not on farms or ranges. In the second class are included all domestic animals in cities, towns, and villages; those in stock yards; those employed in manufacturing, lumbering, mining, and kindred enterprises; and those used for pleasure or profit by individuals other than farm proprietors.

SCHEDULES AND ENUMERATION.

The principal farm schedule was prepared in accordance with the provisions of the census act, and was designed for the exclusive purpose of collecting data relating to farms and their products. The schedule and instructions to enumerators and special agents in 1900 are reproduced in this volume, together with the corresponding schedules and instructions for each census of agriculture since 1850, and will be found following the general tables. The information for the agricultural schedule was secured by the enumerators almost wholly through personal visitation. This was supplemented by data collected by special agents in the range states of the West and Southwest, and in the sugar-producing parishes or counties of Louisiana and Texas, and also by special correspondence conducted from the office at Washington. The work of the special agents on the ranges was under the direction of Mr. Charles F. Martin, of Denver, Colo., and was designed to secure detailed reports and additional data regarding local conditions, to be used as a check against omissions and inaccuracies of the enumerators in the thinly settled portions of the range country. The special agents employed in the South collected from the sugar plantations data too detailed to be obtained by the enumerators.

The correspondence from the Census Office was of two kinds: (1) Special schedules were prepared for data of irrigation, floriculture, nurseries, and cranberry culture, and many letters were written to specialists in various branches of agriculture, such as stock raising, dairying, etc. These schedules and letters were designed to secure more detailed information than was called for by the farm schedule in the hands of the enumerators. (2) In addition to correspondence of the above character, it was found necessary, in order to perfect defective schedules, to mail thousands of special letters, each applicable to a particular case. The original reports of the enumerators, supplemented by the information obtained through these letters and from the special schedules, supplied data of a high degree of accuracy, and it is believed that the tables prepared therefrom are a most complete and trustworthy statistical exhibit of the agricultural resources and products of the United States.

DEFINITION OF THE WORD "FARM" AS USED IN CENSUS REPORTS.

The census of agriculture is not designed to secure a report of the area and value of all land. It takes no account of land held solely for speculative purposes, of tracts occupied by mining or manufacturing plants, or of those used for business or residence purposes apart from the farm. If all, or any, of these classes of land were included, the figures relating to farms would lose their significance. The statistics of agriculture here

Pages ix through xiii were inadvertently omitted during scanning.

presented do not, therefore, include any data relating to mines or quarries, to animal products, or to crops raised by persons who pursue some calling other than agriculture, but incidentally care for a tract of land too small to be regarded as a farm.

The first comprehensive census of agriculture was taken in 1850. Those in charge of that census recognized the necessity of establishing a limit below which no tract of land used for agricultural purposes should be considered a farm. The instructions upon this point issued to the marshals collecting the data in 1850 were as follows:

The returns of all farms, or plantations, the produce of which amounts to $100 in value, are to be included in this schedule; but it is not intended to include the returns of small lots, owned or worked by persons following mechanical or other pursuits, where the productions are not $100 in value.

No instructions upon this subject were given to the enumerators in 1860. In 1870, and again in 1880, the instructions were as follows:

"Farms," for the purposes of the agricultural schedule, include all considerable nurseries, orchards, and market gardens, which are owned by separate parties, which are cultivated for pecuniary profit, and employ as much as the labor of one able-bodied workman during the year. Mere cabbage and potato patches, family vegetable gardens, and ornamental lawns, not constituting a portion of a farm for general agricultural purposes, will be excluded. No farm will be reported of less than 3 acres, unless $500 worth of produce has been actually sold off from it during the year. The latter proviso will allow the inclusion of many market gardens in the neighborhood of large cities, where, although the area is small, a high state of cultivation is maintained and considerable values are produced. A farm is what is owned or leased by one man and cultivated under his care. A distant wood lot or sheep pasture, even if in another subdivision, is to be treated as a part of the farm; but wherever there is a resident overseer, or a manager, there a farm is to be reported.

These instructions were slightly modified in 1890, the words used with reference to this subject being as follows:

A person who cultivates a farm is not to be regarded as hiring it if he works for a definite and fixed compensation in money or fixed quantity of produce, but he is to be regarded as hiring it if he pays a rental for it or is to receive a share of the produce, even though he may be subject to some direction and control by the owner. "Farms," for the purposes of the agricultural schedule, include, besides what are commonly known as farms, all considerable nurseries, orchards, and market gardens owned by separate parties, which are cultivated for pecuniary profit and employ as much as the labor of one able-bodied workman during the year. Mere cabbage and potato patches, family vegetable gardens, and ornamental lawns, not constituting a portion of a farm for general agricultural purposes, will be excluded. No farm will be reported of less than 3 acres, unless $500 worth of produce has been actually sold from it during the year. The latter proviso will allow the inclusion of many market gardens in the neighborhood of large cities, where, although the area is small, a high state of cultivation is maintained and considerable values are produced. A farm is what is owned or leased by one man and cultivated under his care. A distant wood lot or sheep pasture, even if in another subdivision or district, is to be treated as a part of the farm; but wherever there is a resident overseer, or a manager, there a separate farm is to be reported.

In accordance with these instructions farms and establishments containing less than 3 acres were not reported in 1870, 1880, nor 1890, unless they sold in the census year at least $500 worth of products. That there was no logical basis for this arbitrary rule can be noted from the following facts: In no census of the country had one-half of the farms reported products of a value of $500, and the proportion that had sold products of that value was much smaller. The land occupied and the products secured by very many persons devoting their entire time to caring for small dairies, apiaries, florists' establishments, and kindred agricultural establishments were omitted from reports, although these persons were properly included in the occupation tables as dairymen, apiarists, florists, etc. The omission in the one case and inclusion in the other account in part for the wide discrepancy between the statistics of occupation and those of agriculture as reported by the census.

By reason of these facts the rule previously employed with reference to amount of sales was omitted in the Twelfth Census, and all agricultural establishments with less than three acres were reported as farms whenever their operation or management required the constant services of at least one individual. The instructions issued to the enumerators were as follows:

A farm, for census purposes, includes all the land under one management, used for raising crops and pasturing live stock, with the wood lots, swamps, meadows, etc., connected therewith, whether consisting of one tract or of several separate tracts. It also includes the house in which the farmer resides, and all other buildings used by him in connection with his farming operations, together with the land upon which they are located. If the individual conducting a farm resides in a house not located upon the land used by him for farm purposes, and his chief occupation is farming, the house and lot on which it is located are a part of the farm. If, however, he devotes the greater portion of his time to some other occupation, the house in which he resides is not a part of the farm. If the land owned by an individual, firm, or corporation is operated in part by the owner and in part by one or more tenants or managers, or if the land is wholly operated by tenants or managers, the portion of the land occupied by each is a farm, and must be reported in the name of the individual or individuals operating it. No land cultivated under the direction of others is to be included in the report of the land operated by the owner. For census purposes, market, truck, and fruit gardens, orchards, nurseries, cranberry marshes, greenhouses, and city dairies are "farms:" *Provided*, The entire time of at least one individual is devoted to their care. This statement, however, does not refer to gardens in cities or towns which are maintained by persons for the use or enjoyment of their families and not for gain. Public institutions, as almshouses, insane asylums, etc., cultivating large vegetable or fruit gardens, or carrying on other agricultural work, are to be considered farms.

By these instructions the word "farm" was again given a meaning practically identical with that in the minds of the persons in charge of the first census of agriculture in 1850. All separate tracts of land, regardless of size, or of the income therefrom, which required for their management the services of at least one person during the greater part of the year, were to be reported as farms. The only limitation employed in the census of 1850 was that which provided that small lots owned

or worked by persons following mechanical or other pursuits should not be reported when the products were valued at less than $100. The exact effect of changing the rule of 1880 and 1890 and returning practically to that of 1850 with reference to farms of less than 3 acres is shown in Tables 4 and 51, which give for each state and territory the number of farms of less than 3 acres, upon which the products not fed to live stock had a value in 1899 of less than $500.

RELATION OF THE STATISTICS OF AGRICULTURE TO THOSE OF POPULATION.

In its instructions with reference to farms, and in its arrangements for performing the branch of work assigned to it, the agricultural division sought to bring into a single report an exhibit of the number of establishments, under whatever name, conducting agricultural operations, and also a statement of the property used in connection with such operations and of the products obtained. It sought also to bring the statistics of agriculture into greater harmony than heretofore with the occupation tables and the tables of farm ownership and tenancy compiled by the population division. It strove to make the farms, florists' establishments, and the like, represent the property cared for by the persons reported by the population division as farmers, florists, ranchmen, planters, nurserymen, etc., thus securing greater consistency than in preceding census reports between the number of farms and the number of farm families. It was believed that the statistics of population could then be used in testing the correctness of the statistics of agriculture, and the statistics of agriculture, in testing the correctness of the tables of occupation and home proprietorship compiled by the population division; in short, that the statistics of the two divisions would thus be of mutual assistance in the interpretation of the tabulated results. These ends had not been accomplished so fully in the past as was desirable, for the following reasons:

In 1850, as in all succeeding census years, there were many individuals who made use of public lands or of the unfenced and unused lands of private individuals for herding sheep and cattle. The individuals thus conducting agricultural operations, some of them upon a large scale, were enumerated and classed by the population division as engaged in agriculture and their occupations given as stock raisers, herders, dairymen, or farmers, but no data in regard to their farm property or operations were collected by the agricultural division. No attempt was made to enumerate or estimate the number of animals on these unfenced lands, or to ascertain the number of ranches, farms, dairies, or similar establishments with which these animals were connected and to which they contributed an income.

In 1860 the census authorities recognized the fact that the scope of the farm enumeration did not include all domestic animals. Estimates were secured of the number of such animals not on farms, but those on the public domain or range were not separated from those in cities, towns, and hamlets. The method of reporting the occupation of the persons caring for these animals was not changed, and the number of ranches or other establishments was not estimated. The census for 1870 followed substantially the plan of the preceding census. The population tables of 1850, 1860, and 1870 included as agriculturists the persons caring for these animals, but the statistics of agriculture failed to include their property or their agricultural operations.

The census of 1880 gave practical recognition to the fact that the care of the animals on the public domain was a part of the agricultural operations of the country. The Superintendent of the Tenth Census, referring, in his report, to a table giving the number of farms in the several states, says:

> The number of farms reported in the territories is inadequate to represent the agricultural operations of those regions. This is owing to the fact that these operations are carried on, not generally upon farms, in the ordinary or in any proper sense of that term, but over vast ranges, consisting mainly of public lands, under what is known as the ranch system, the products being chiefly meat, hides, and wool. * * * The extensive pursuit of sheep and cattle raising under the ranch system in certain portions of California, Oregon, Nevada, Colorado, Kansas, Nebraska, and Texas also requires a somewhat larger view to be taken of the agricultural capabilities and the agricultural operations of these states than would be implied in the figures of the number of farms alone.

With the recognition that the range industry was an essential part of the agricultural operations of the country, the Tenth Census expended much labor and money in securing careful estimates, through special agents, of the number of animals on the public domain that were omitted by the enumerators. The number of animals thus estimated was not, however, included with the number reported from farms.

Owing to the large area and sparse settlement of the territory embraced by the range interests, it was impossible to make a trustworthy estimate of the number of individual ranches not reported by the enumerators, though in all probability the operators thereof were fairly well enumerated, and were included in the statistics of agricultural population.

By 1890 the settlement of the West and Southwest had made such progress as to lessen the practical difficulties of securing accurate information relating to range animals. The work of the enumerators was accepted as virtually complete in Idaho, Washington, Oregon, Kansas, Nebraska, North Dakota, Florida, and, with inconsiderable exceptions, in South Dakota, although ten years before, their work in these states and territories was so incomplete as to require the supplementary estimates of the special agents. In parts of Texas, Wyoming, Colorado, Montana, Utah, California, New Mexico, Oklahoma, Indian Territory, and South Dakota, the reports of the enumerators were less satisfactory, and were supplemented by estimates of special agents. The results of such estimates were

embodied in the volume of agriculture, separate, however, from the regular farm statistics.

The authorities of the present census have endeavored to secure an enumeration of all animals on the range and thus to extend still further the practical improvements made by the census of 1890 for Idaho, Washington, Oregon, Kansas, Nebraska, North Dakota, and Florida. The extensive settlements in the range country in the ten years succeeding 1890, and the very efficient labor of a large number of special agents rendered this possible. It was possible, also, to include in the statement of farms the number of ranches using the public domain, and thus to make the statistics of the range section of the country, as compiled by the division of agriculture, more harmonious with the occupation tables and statistics of farm families prepared by the division of population.

The printed instructions in regard to ranges were as follows:

> Across the heading of schedules for farms or ranches using public lands for grazing live stock, write the word "Range" in large letters. In reporting the live stock of such a farm or ranch, give the total number of animals, including those fed on the range, belonging to or cared for by the farm or ranch reported. If a ranch leases land from a state or the National Government, or from a railroad or other corporation, the acreage of such leased land should be included in the acreage of the land owned by the ranch and an estimate of its value included in the value of the ranch. If the animals connected with the ranch feed upon the public domain and the owner of the animals does not own or lease any land, fill out a schedule for such ranch the same as for an ordinary farm, writing, in answer to inquiry 6, the words, "No land owned or leased."

In including as farms the ranches using the public domain, the rule applied was that adopted for dairies and market gardens—that is, the test was not the amount of land owned or leased in connection with the ranch, but the extent of the agricultural operations conducted. If these operations were sufficient to require the constant labor of at least one person, the ranch was tabulated as a farm; otherwise, not. When not thus tabulated, nothing connected with it was included in the statistics of farms. The animals were tabulated with those not on farms or ranges, and no attention was given to the products.

ARRANGEMENT OF DATA BY GEOGRAPHIC DIVISIONS.

Prior to the census of 1900 the only classifications employed in the statistics of farms were those by minor geographic divisions and by area of farms in acres. The census of 1850 and each succeeding census presented the statistics by counties, states, and territories. The census of 1890 presented, also, the statistics by five grand geographic divisions of states and territories, designated the North Atlantic, South Atlantic, North Central, South Central, and Western. Since the adoption of that classification, Hawaii has been incorporated into the nation, but as neither that territory nor Alaska is classed in the five divisions named, they are grouped together as a sixth division. In the general tables of this and Part II of the statistics of agriculture the five leading divisions are placed at the head, and the states and territories follow, arranged alphabetically. Wherever the statistics of individual states and territories are presented in the explanatory text accompanying the general tables, they are arranged in their appropriate geographic divisions.

The maps and diagrams used in this volume to illustrate certain features of the discussion of the statistics of agriculture comprise 19 plates, which are placed for convenience immediately preceding the general tables.

AGRICULTURAL PROGRESS OF FIFTY YEARS.

INCREASE IN THE NUMBER OF FARMS.

The census of agriculture of 1850 reported 1,449,073 farms, and that of 1900, 5,739,657, an addition in fifty years of 4,290,584 farms, or nearly three times as many as had been established in the preceding two hundred and fifty years of settlement. The same period witnessed an increase in national population from 23,191,876 to 76,303,387, and in that of cities with 8,000 inhabitants and over, from 2,897,586 to 25,031,505. Notwithstanding this unprecedented growth in urban population, the increase in the number of farms was relatively greater than that in population, being in the ratio of 4 to 3.3. In 1850 there was 1 farm for every 16 persons in the United States; in 1900 there was 1 for every 13.3 persons. In proportion to population, therefore, there were 6 farms in 1900 where there were only 5 in 1850, representing an addition of 1 farm for every 12.4 persons added to the national population.

If only the population outside of cities with 8,000 inhabitants and over be considered, the following figures are obtained: In 1850 there was 1 farm for every 14 of the 20,294,290 persons composing this population, while in 1900, when the corresponding population was 51,271,882, there was 1 farm for every 8.9 persons. In proportion to the nonurban population, there were 7 farms in 1900 where there were only 4 in 1850, representing the establishment of 1 farm for every 7.2 persons added to the population outside of cities of 8,000 inhabitants and over. Compared with the nonurban population there were nearly twice as many farms established during these fifty years as in the period between the settlement of Jamestown and the middle of the Nineteenth century. This large actual and relative increase in the number of farms since 1850 is a fact of great social importance, and is reflected in all the statistics of agriculture.

The number of farms, with the increase and per cent of increase for each decennial period from 1850 to 1900,

is given for the United States and for the five geographic divisions in the following table:

TABLE I.—NUMBER OF FARMS, BY GEOGRAPHIC DIVISIONS, WITH INCREASE AND PER CENT OF INCREASE BY DECADES: SUMMARY 1850 TO 1900.

CENSUS YEAR.	Number of farms.	Increase in decade.	Per cent of increase.
A.—THE UNITED STATES.			
1900	5,739,657	[1]1,175,016	25.7
1890	4,564,641	555,734	13.9
1880	4,008,907	1,348,922	50.7
1870	2,659,985	615,908	30.1
1860	2,044,077	595,004	41.1
1850	1,449,073	.....	.....
B.—NORTH ATLANTIC DIVISION.			
1900	677,506	18,937	2.9
1890	658,569	[2]37,570	[2]5.4
1880	696,139	94,544	15.7
1870	601,595	36,660	6.5
1860	564,935	75,181	15.4
1850	489,754	.....	.....
C.—SOUTH ATLANTIC DIVISION.			
1900	962,225	212,625	28.4
1890	749,600	105,171	16.3
1880	644,429	270,327	72.3
1870	374,102	72,162	23.9
1860	301,940	53,744	21.7
1850	248,196	.....	.....
D.—NORTH CENTRAL DIVISION.			
1900	2,196,567	272,745	14.2
1890	1,923,822	225,854	13.3
1880	1,697,968	572,890	50.9
1870	1,125,078	352,913	45.7
1860	772,165	334,568	76.5
1850	437,597	.....	.....
E.—SOUTH CENTRAL DIVISION.			
1900	1,658,166	571,394	52.6
1890	1,086,772	200,124	22.6
1880	886,648	375,650	73.5
1870	510,998	140,025	38.0
1860	370,373	103,559	38.8
1850	266,814	.....	.....
F.—WESTERN DIVISION.			
1900	242,908	97,030	66.5
1890	145,878	62,155	74.2
1880	83,723	35,511	73.7
1870	48,212	13,548	39.1
1860	34,664	27,952	416.4
1850	6,712	.....	.....
G.—ALASKA AND HAWAII.[3]			
1900	2,285	.....	.....

[1] Including farms in Alaska and Hawaii which were not enumerated prior to 1900.
[2] Decrease.
[3] No report prior to 1900.

In the census of 1900, there were enumerated, exclusive of similar farms operated by Indians, Hawaiians, and Alaskans, 32,829 farms of less than 3 acres which reported less than $500 worth of farm products not fed to live stock, and which would have been omitted under the instructions given in 1880 and 1890. The farms in Alaska and Hawaii, numbering 2,285, and those of Indians, numbering 19,910, were reported also for the first time. The number of farms in the South Central and Western divisions, the operators of which neither owned nor leased land in 1899, but grazed their cattle and sheep on the public domain, was approximately 5,785. Of similar farms, 486 situated in Kansas, Nebraska, North Dakota, South Dakota, Texas, Oklahoma, and Indian Territory reported incomes of over $500, and are the only ones not included in the 32,829 farms above referred to. Including the 486 farms last referred to, the farms in Alaska and Hawaii, those of Indians, and those under 3 acres in area which reported less than $500 worth of farm products not fed to live stock—a total of 55,510 farms—there were reported in the United States, June 1, 1900, 5,739,657 farms, an increase in the last decade of 1,175,016, or 25.7 per cent. Excluding them would leave 5,684,147 farms, an increase of 1,119,506, or 24.5 per cent.

It is evident, then, that their inclusion is but a small factor in the great increase shown in table I.

The increase in the number of farms between 1890 and 1900 was greater than in any preceding decade, with the exception of that between 1870 and 1880. The per cent of increase, however, was smaller than for any decade since 1850, except that from 1880 to 1890.

It is well known that the statistics of agriculture and of population in 1870 were more or less defective. The number of farms reported in Massachusetts in that year was barely two-thirds as great as in 1860 and 1880, and attention was called to this fact by the Superintendent of the Census of 1880. (See Statistics of Agriculture, Tenth Census, page x.) It is probable that many farms were omitted in other parts of the country, especially in the South, where it is now generally conceded that large numbers of people were not enumerated. (See report on population, census of 1890, Part I, pages XI, XII, XIII.) The evidence of the omission of farms in 1870 is of the same character as that indicating the omission of population, but owing to the great number of variable factors affecting farm statistics it is impossible, save for a few states like Massachusetts, to make any reliable estimates of the number of unenumerated farms in 1870.

The percentages of table I—exceptionally high for the decades ending 1880 and 1900, and lower for those ending 1870 and 1890—suggest the possibility of a failure to enumerate all the farms in 1890, as in 1870. While the increase in the number of farms varies somewhat with the changes in economic conditions affecting national prosperity, such variations, in all probability, are not sufficient to account for the large increase in the number of farms in the decades 1870 to 1880 and 1890 to 1900, and the comparatively small increase in the decade 1880 to 1890. A number of additional facts supporting the conclusion that all the farms were not enu-

merated in 1890 will be considered later in the discussion of other statistics relating to farms, farm families, and persons engaged in agriculture.

Table 50 presents, by states and territories, a summary of the number of farms reported at each census from 1850 to 1900. The North Atlantic states, with the exception of Maine and Rhode Island, reported more farms in 1900 than ten years before. The gain in New Jersey was 12.4 per cent; in Massachusetts, 9.7 per cent; in Pennsylvania, 6.0 per cent; in Connecticut, 2.3 per cent; in Vermont, 1.6 per cent; in New Hampshire, 0.6 per cent; and in New York, 0.2 per cent. The number of all farms in the division increased 2.9 per cent, while in the preceding decade it decreased 5.4 per cent. Between 1880 and 1890 the number of farms decreased by 37,570, losses having occurred in every state in the division except Pennsylvania and New Jersey, leaving a net loss between 1880 and 1900 of 18,633.

In all the South Atlantic states, except Virginia and the District of Columbia, the number of farms reported has increased in every decade since 1850. The exception in the case of Virginia was caused by the formation from a part of its territory of the state of West Virginia in 1863. From 1890 to 1900 the per cent of increase in Virginia, West Virginia, and North and South Carolina was considerable. The rate of gain was smallest in Delaware, where it was barely 3 per cent.

The number of farms reported from the North Central division in 1900 was 14.2 per cent greater than in 1890. Each of the 12 states in that division showed an increase, the greatest percentages of gain being in North Dakota, Minnesota, Missouri, Michigan, and Wisconsin. In all these states, except Missouri, the increase was due principally to the opening of new farms on the virgin prairie, or on cleared forest lands. In Missouri the increase was largely caused by a subdivision of some of the large farms.

In the South Central division the number of farms added in the last ten years was twice as great as in the largest agricultural division, the North Central, and the per cent of increase in the former division was nearly four times as great as in the latter, and over twice that for the United States. As no farms were reported for Indian Territory in 1890, the per cent of increase in the decade can not be expressed for that territory. Among the other states and territories, the greatest percentages of gain are shown in Oklahoma, Louisiana, Mississippi, and Texas, in the order mentioned.

The number of farms has increased since 1890 in every state and territory in the Western division, the per cent of gain for the group being somewhat greater than that for the South Central. In this, as in the South Central division, a part of the increase marks the opening of new farms, and a part, the inclusion of the ranches using the public domain, which had not previously been enumerated as farms. It is impossible, from the data available, to determine the actual and relative increase in the number of separate agricultural establishments in the several states and territories of these two divisions. The publication, by states and territories, of the statistics of occupation and of tenure of farm families, as compiled by the population division, will furnish data for a trustworthy conclusion on this subject.

In 1850 New York reported 170,621 farms, the largest number of any state. Only two other states reported over 100,000. They were Ohio, 143,807, and Pennsylvania, 127,577.

In 1900 fifteen states reported over 200,000 farms, as follows: Texas, 352,190; Missouri, 284,886; Ohio, 276,719; Illinois, 264,151; Kentucky, 234,667; Iowa, 228,622; New York, 226,720; Georgia, 224,691; North Carolina, 224,637; Tennessee, 224,623; Pennsylvania, 224,248; Alabama, 223,220; Indiana, 221,897; Mississippi, 220,803; and Michigan, 203,261.

Plate 6 shows the increase in number of farms since 1850.

INCREASE IN FARM ACREAGE.

Table 52 presents an exhibit by states and territories of the acreage of farms as given in the census reports of 1850 to 1900, inclusive. A summary of those figures, by geographic divisions, is given in table II.

TABLE II.—IMPROVED AND UNIMPROVED LAND IN FARMS BY GEOGRAPHIC DIVISIONS, WITH PER CENT OF INCREASE BY DECADES: SUMMARY 1850 TO 1900.

A.—THE UNITED STATES.

CENSUS YEAR.	ACRES OF LAND IN FARMS.			PER CENT OF INCREASE.		
	Total.	Improved.	Unimproved.	Total land.	Improved land.	Unimproved land.
1900	841,201,546	414,793,191	426,408,355	[1] 35.0	16.0	60.5
1890	623,218,619	357,616,755	265,601,864	16.3	25.6	5.7
1880	536,081,835	284,771,042	251,310,793	31.5	50.7	14.9
1870	407,735,041	188,921,099	218,813,942	0.1	15.8	[2] 10.4
1860	407,212,538	163,110,720	244,101,818	38.7	44.3	35.2
1850	293,560,614	113,032,614	180,528,000	.....	.....	.....

B.—NORTH ATLANTIC DIVISION.

1900	65,409,089	38,920,614	26,488,475	4.2	[2] 8.1	29.8
1890	62,743,525	42,338,024	20,405,501	[2] 7.7	[2] 8.7	[2] 5.5
1880	67,985,640	46,385,632	21,600,008	8.4	12.8	[2] 0.1
1870	62,744,384	41,117,185	21,627,199	2.7	5.5	[2] 2.1
1860	61,081,545	38,981,911	22,099,634	10.7	14.8	4.2
1850	55,162,835	33,956,168	21,206,667	.....	.....	.....

C.—SOUTH ATLANTIC DIVISION.

1900	104,297,506	46,100,226	58,197,280	4.1	10.6	[2] 0.5
1890	100,157,578	41,677,371	58,480,202	[2] 1.2	15.2	[2] 10.4
1880	101,419,563	36,170,331	65,249,232	12.4	19.8	8.7
1870	90,213,055	30,202,991	60,010,064	[2] 15.3	[2] 13.5	[2] 16.2
1860	106,520,771	34,900,942	71,619,829	14.0	16.3	13.0
1850	93,401,610	30,009,323	63,392,287	.....	.....	.....

D.—NORTH CENTRAL DIVISION.

1900	317,349,474	222,314,099	95,035,375	23.7	20.6	31.5
1890	256,586,994	184,292,126	72,294,868	24.0	34.7	3.1
1880	206,982,157	136,842,319	70,139,838	48.7	74.5	15.4
1870	139,215,269	78,409,509	60,805,760	29.0	49.9	9.4
1860	107,899,590	52,308,699	55,590,891	72.1	96.1	54.4
1850	62,686,490	26,680,332	36,006,158	.....	.....	.....

[1] Including farms in Alaska and Hawaii which were not enumerated prior to 1900.
[2] Decrease.

TABLE II.—IMPROVED AND UNIMPROVED LAND IN FARMS BY GEOGRAPHIC DIVISIONS, WITH PER CENT OF INCREASE BY DECADES: SUMMARY 1850 TO 1900—Cont'd.

E.—SOUTH CENTRAL DIVISION.

CENSUS YEAR.	ACRES OF LAND IN FARMS.			PER CENT OF INCREASE.		
	Total.	Improved.	Unimproved.	Total land.	Improved land.	Unimproved land.
1900	257,738,845	80,007,867	177,730,978	64.7	20.7	97.1
1890	156,448,294	66,288,824	90,159,470	17.2	33.1	7.7
1880	133,500,223	49,806,771	83,693,452	34.4	60.2	22.6
1870	99,343,247	31,088,775	68,254,472	[1]16.5	[1]6.4	[1]20.4
1860	118,992,965	33,232,226	85,760,739	53.3	50.8	54.2
1850	77,645,466	22,038,946	55,606,520	.....	.....	.....

F.—WESTERN DIVISION.

1900	93,796,860	27,155,681	66,641,179	98.4	18.0	174.7
1890	47,282,233	23,020,410	24,261,823	80.5	47.9	128.3
1880	26,194,252	15,565,989	10,628,263	61.5	92.1	30.9
1870	16,219,086	8,102,639	8,116,447	27.5	119.8	[1]10.1
1860	12,717,667	3,686,942	9,030,725	172.7	959.9	109.2
1850	4,664,213	347,845	4,316,368	.....	.....	.....

G.—ALASKA AND HAWAII.[2]

1900	2,609,772	294,704	2,315,068	.....	.....	.....

[1] Decrease. [2] No report prior to 1900.

From 1850 to 1900 the reported area of farm land increased from 293,560,614 acres to 841,201,546 acres. The new land opened for agricultural uses was 547,640,932 acres, or nearly twice as much as that converted from the wilderness into farms prior to the middle of the century. The improved land in farms, which was only 113,032,614 acres in 1850, advanced to 414,793,191 acres in 1900, an increase during the half century of 301,760,577 acres, which increase represents nearly three times the area under improvement in 1850.

The productive power of the farm naturally increases in proportion to the increase of its improved area. In 1850 the farms of the country not only supplied the people with food and with most of the raw material for clothing, but furnished also considerable quantities of products for export. Since that time the crop-producing area has increased so much faster than the national population that the country now supplies its people with more and better food and with more material for clothing than ever before, and at the same time exports agricultural products to an extent that was impossible until recent years. The figures of table II and Table 52 furnish a partial statement of this increased power of the country to export the products of the soil. Had the area of improved land increased at no greater rate than the national population (229 per cent), it would have been only 371,877,300 acres, or 42,915,891 acres less than it actually is. All this surplus area is available for the production of food supplies for foreign nations; but, in fact, owing to improved methods of cultivation and to the occupation of more fertile soils, the exportations of agricultural products from this country have increased in even greater proportion, and now have an annual value nearly, if not quite, equal to one-half that of the total production of staples in 1850. This is evidenced by a comparison of the Treasury statement of exports in 1899 with the census crop report of 1849.

The reported farm acreage of the North Atlantic division, as given in table II, presents some anomalies which suggest the probability of error in the enumeration of one or more census years. The Tenth Census called attention to errors in the farm census of 1870 by which a large number of farms were omitted from the enumeration, causing the area of farm land to appear smaller than it really was. At least 600,000 acres were thus omitted in Massachusetts, and the acreage omitted in the other North Atlantic states as a result of the same error was at least one-half as much more. A correct census in 1870 would probably have reported at least 1,000,000 more acres in the North Atlantic states than are shown by the figures of table II and Table 52.

The farm area of these states as reported in 1880 was about 5,000,000 acres in excess of the area reported in 1870 or in 1890, and about 2,500,000 acres in excess of that reported in 1900. The variations in the three years, 1870, 1880, and 1890, were largely confined to improved land. These anomalies indicate that both the total acreage and the acreage of improved land reported by the census of 1880 were in excess of the actual areas. A comparison of the farm acreage reported in 1880 with that of assessed land discloses a number of counties in which the former exceeded the latter. Among these, attention is called to Montgomery and Chenango counties, New York, with 227,745 and 547,940 acres, respectively, of assessed land, but reporting in 1880, 286,641 and 603,922 acres of farm land.

The source of this error is disclosed by a careful study of the farm schedules received from these counties and a comparison of the acreages of many farms as reported in 1870, 1880, 1890, and 1900. In 1850 and in 1860 the census asked for reports of "acres of land" under the two heads "improved" and "unimproved." The census of 1870 also called for like reports, but the unimproved land was subdivided into "wood land" and "other unimproved." In none of these years could there have been much misunderstanding concerning farm acreage, the total area being the sum of the acres reported under the foregoing heads. In 1880 the census sought to secure reports of land area under the two general heads "improved" and "unimproved," each of which was divided into two subheads. The two for "improved" were (1) "tilled, including fallow and grass in rotation (whether pasture or meadow)" and (2) "permanent meadows, permanent pastures, orchards, and vineyards." The subdivisions for "unimproved" were (1) "wood land and forests" and (2) "other unimproved, including old fields not growing wood." The majority of the enumerators understood the questions as intended by the census authorities. A considerable number did not. Those misinterpreting, reported

meadow land, and in some cases permanent pastures, in both subdivisions of the improved, thus reporting much more improved land than existed. Upon the schedules there was no check by which the clerks tabulating the reports could detect such errors. In 1890 the same questions were asked and gave rise to the same misunderstanding on the part of the enumerators, but the schedules of that year called for statements of the total farm area in addition to reports of acreage under the four specified heads. With the total area reported there was provided a check for correcting the error of the enumerator, and that correction was made on each schedule where the error was found. These facts, it is believed, fully explain the great apparent decrease in the total area for 1890 in the North Atlantic states, as well as the great decrease in the acreage of improved land.

A study of the schedules of 1880, and comparisons with those of 1870 and 1890, show that there was an excess of acreage reported in 1880 in every section in which permanent meadows and pastures were found, but that the largest percentage of error was in the North Atlantic division. The discovery of this error of 1880 caused the change in the form of the questions relating to land areas and the adoption of the phraseology and instructions found upon the schedules of 1900. It is believed that the form of the questions adopted has elicited the true acreage of the farms reported. The excess reported in 1880 in the North Atlantic division was in all probability not far from 2,500,000 acres, while in all the other divisions there was doubtless some excess of the same character, but the data at hand are insufficient for making trustworthy estimates of its extent. The fact that such excess exists, however, must be considered in any study of the figures for improved land and the changes thereof in all five geographic divisions.

Taking into account the peculiarities of the census reports of farm acreage in 1870 and 1880, a careful study of Table 52 shows that, of the North Atlantic states, Maine, Vermont, New York, and Pennsylvania contained more acres of farm land in 1900 than in any preceding census year. They also show a fairly regular, although trifling, increase in acreage for each decade since 1850. New Hampshire, Massachusetts, Connecticut, and Rhode Island reported smaller farm acreages in 1900 than in some of the earlier census years. In Rhode Island the acreage has decreased more or less regularly every decade since 1850, and prior to 1890 in the following states: In Massachusetts since 1850, in Connecticut since 1860, and in New Jersey since 1870. In these four states the increasing area utilized by the growing urban and suburban population has more than balanced the opening of new farms and the enlargement of old farms by clearing of forest land not included in the earlier census reports. In the other states the reverse is true, and the farm areas are increasing.

In the South Atlantic states the most striking fact to be noted concerning the reported farm areas is the great decrease in the decade 1860 to 1870. This was, of course, one of the disastrous effects of the Civil War, from which the South, after forty years, has not yet fully recovered, as is shown by the fact that in some of these states the reported acreage of farm land in 1900 was less than it was in 1860. But the apparent decline in acreage between 1860 and 1870 was not due wholly to this cause. A considerable part of it reflects the imperfect enumeration of 1870. With the exception of the District of Columbia, all the states of the South Atlantic division show nearly continuous increases in farm acreage since 1870. The large acreage of 1880, as compared with that of 1890, is the result of the causes affecting farm areas, to which special consideration has been given in a preceding paragraph.

With few exceptions the reported area of farm land in all the North Central and Western states has increased in every decade since 1850. In the decades 1860 to 1870 and 1870 to 1880 there was a decrease in New Mexico, and in the decade 1880 to 1890 there were slight decreases in Ohio, Illinois, and Indiana, due to the factors described in the discussion pertaining to the North Atlantic states. These factors were undoubtedly operative in all the other states of the division, but the effect, in most cases, was concealed by the very great additions to farm areas that have taken place in each decade. In the forty years from 1850 to 1890 the increase in farm acreage in the North Central states constituted nearly two-thirds of that for the United States. During that period the states of this division received the greater share of the benefits derived from the enactment of the homestead act of 1862, chief among them being the immigration of a numerous farm population recruited from the most thrifty races of Europe.

In the South Central as well as in the South Atlantic states the statistics of farm acreage in 1870 reflect the results of the Civil War, and also the imperfect enumeration of that year. If allowance be made for these factors, most of the states of this division record a continuous increase in farm acreage from 1850 and a very marked increase since 1870. The only exceptions are Kentucky and Tennessee, which showed a decrease in 1890. The aggregate increase in the decade 1890 to 1900 was 101,290,551 acres, a greater gain than has ever been reported for a single decade by any other geographic division. This enormous increase was largely due to the opening up for settlement of agricultural lands in Oklahoma and Indian Territory and to the sale or leasing of state land in Texas. In the last-mentioned state most of the grazing land still belongs to the state, but in 1900 it was leased to cattle and sheep raisers, and was included in their farm reports. The increase in farm acreage, therefore, is not due wholly, as it always has been in the North Central states, to the settlement of land under the homestead or preemption laws.

In the Western division there has been a continuous increase since 1850 in the farm area reported. From 1890 to 1900 the increase was nearly 100 per cent, and consisted mainly of land purchased by settlers, but partly of school lands and other lands leased from the state for agricultural purposes, and lands leased from railroad companies out of grants secured to them under the various railroad land-grant acts of the past forty years.

In 1850 only three states reported over 20,000,000 acres of farm land—Virginia, 26,152,311; Georgia, 22,821,279; and North Carolina, 20,996,983.

In 1900 there were five states with farm areas exceeding 30,000,000 acres, as follows: Texas, 125,807,017; Kansas, 41,662,970; Iowa, 34,574,337; Missouri, 33,997,783; and Illinois, 32,794,728. Plate 9 shows the increase in improved and unimproved land since 1850, and Plate 7 shows the improved and unimproved land by states and territories in 1900.

AVERAGE SIZE OF FARMS.

In all of the five geographic divisions, with the exception of the North Central, the increase since 1850 in the number of farms has been relatively greater than that in farm area, and consequently the average size of farms, with the exception above noted, has decreased during the same period. In table III the average size of farms is given by geographic divisions for each census year, beginning with 1850. This information is presented by states and territories in Table 50. The same facts are presented graphically in Plate 6, which also gives an exhibit of the average size of farms in all the states and territories. Plate 10 gives the same class of facts in another form.

TABLE III.—AVERAGE NUMBER OF ACRES PER FARM, BY GEOGRAPHIC DIVISIONS: SUMMARY 1850 TO 1900.

GEOGRAPHIC DIVISIONS.	1900	1890	1880	1870	1860	1850
The United States	146.6	136.5	133.7	153.3	199.2	202.6
North Atlantic	96.5	95.3	97.7	104.3	108.1	112.6
South Atlantic	108.4	133.6	157.4	241.1	352.8	376.4
North Central	144.5	133.4	121.9	123.7	139.7	143.3
South Central	155.4	144.0	150.6	194.4	321.3	291.0
Western	386.1	324.1	312.9	336.4	366.9	694.9
Alaska and Hawaii[1]	1,142.1	.....	.....	.....	.....	.....

[1] No report prior to 1900.

For the United States the average size of farms decreased from 1850 until 1880, since which year it has steadily increased. This was true, also, in the North Central and Western divisions, but in the North Atlantic states there was a decrease until 1890, a gain being shown for the last decade only. If, however, the farm acreage reported at the census of 1880 was, as has been estimated, approximately 2,500,000 acres in excess of the actual acreage, the average size of farms in this division was smallest in 1880 and the changes have been identical in time and character with those for the United States. In the South Atlantic division there was a constant decrease from 1850 to 1900, and in the South Central, from 1860 to 1890. The average for this latter group was greater in 1860 than in 1850, and in 1900 than in 1890.

An examination of the average size of farms for the individual states, as given in Table 50, and that for the counties, as given in Table 19, discloses in many of the older settled communities a decrease in the average size of farms. This is most marked in the cotton-growing states, where it is the result of a subdivision of the larger holdings and the leasing of smaller areas to tenants, the size depending upon the amount of land which the tenant can properly cultivate by his own labor. This movement began shortly after the close of the Civil War, and is still in progress in most sections where large areas are devoted to the growing of cotton. Its extent may be measured by the reduction in the average area of farms in the South Atlantic states from 376.4 acres in 1850 to 108.4 acres in 1900.

Nowhere in the Northern states has there been a like decrease in the average size of farms. The average in Maine has increased from 97.2 acres in 1850 to 106.2 acres in 1900; in New Hampshire, from 116.0 acres to 123.1 acres; and in Vermont, from 138.6 acres to 142.7 acres. In most counties of these states the leading agricultural pursuit is dairying, and, owing to the fact that in this industry very small farms can not properly support a family, the farms are being sold and the land absorbed in larger holdings. This movement can be traced in all the dairy sections of the North Atlantic division. In such states as Massachusetts, New York, New Jersey, Pennsylvania, and Connecticut this increase in the size of farms in the dairy sections has been more than counterbalanced by the subdivision of old farms near cities for use in the growing of fruits and vegetables, which accounts for the decrease in the average area of the farms of these states. The same conditions have been operative in Ohio, Indiana, and Illinois, diminishing the average size of all farms for those states, although not materially affecting that of farms devoted to diversified agriculture. In sections better adapted for grazing than for the cultivation of crops, as in western Kansas and Nebraska, North and South Dakota, western Texas, and in most of the semi-arid portions of the West, the average area of farms is much larger than in other parts of the country, and has tended to increase in the last decade.

Throughout the United States, the increase or decrease in the average size of farms, therefore, is due to the changes incident to the adjustment of the agricultural operations of each locality to those branches of husbandry to which it is best adapted. It may be said that the average area of farms tends to approximate the area from which the farmer possessing average capital can secure the largest returns.

Table IV presents, by geographic divisions, the average number of acres of improved land per farm.

TABLE IV.—AVERAGE NUMBER OF ACRES OF IMPROVED LAND PER FARM, BY GEOGRAPHIC DIVISIONS: SUMMARY 1850 TO 1900.

GEOGRAPHIC DIVISIONS.	1900	1890	1880	1870	1860	1850
The United States	72.3	78.3	71.0	71.0	79.8	78.0
North Atlantic	57.4	64.3	66.6	68.3	69.0	69.3
South Atlantic	47.9	55.6	56.1	80.7	115.6	120.9
North Central	101.2	95.8	80.6	69.7	67.7	61.0
South Central	48.3	61.0	56.2	60.8	89.7	82.6
Western	111.8	157.8	185.9	168.1	106.4	51.8
Alaska and Hawaii[1]	129.0	.....	.....	.....	.....	.....

[1] No report prior to 1900.

In the North Central states, the average number of acres of improved land per farm increased steadily from 61.0 in 1850 to 101.2 in 1900. In the Western division it increased from 51.8 acres in 1850 to 185.9 in 1880, and then decreased to 111.8 acres in 1900. In the South Atlantic and South Central states the changes, on the whole, were in the other direction, the average for the former group of states declining from 120.9 acres in 1850 to 47.9 acres in 1900, and in the latter, from 82.6 acres to 48.3 acres. There was a decline also in the North Atlantic division, but its extent was less marked.

Plate 6 shows the average size of farms from 1850 to 1900 and same by states and territories for 1900.

INCREASE IN IMPROVED FARM LAND.

Table V shows, by geographic divisions, the per cent of farm land improved for each decade since 1850, the figures being taken from Table 52, which gives corresponding percentages for all the states and territories.

TABLE V.—PER CENT OF FARM LAND IMPROVED, BY GEOGRAPHIC DIVISIONS: SUMMARY 1850 TO 1900.

GEOGRAPHIC DIVISIONS.	1900	1890	1880	1870	1860	1850
The United States	49.3	57.4	53.1	46.3	40.1	38.5
North Atlantic	59.5	67.5	68.2	65.5	63.8	61.6
South Atlantic	44.2	41.6	35.7	33.5	32.8	32.1
North Central	70.1	71.8	66.1	56.3	48.5	42.6
South Central	31.0	42.4	37.3	31.3	27.9	28.4
Western	29.0	48.7	59.4	50.0	29.0	7.5
Alaska and Hawaii[1]	11.3	.....	.....	.....	.....	.....

[1] No report prior to 1900.

Even after due allowance has been made for the erroneous and excessive reports of farm land improved in 1880, and the defective reports of Massachusetts and other states in 1870, the per cent of improved land in the North Atlantic division is nevertheless found to have increased from 1850 to 1880, and thereafter to have decreased. The per cent of farm land improved in 1850 was 61.6; in 1890, 67.5; and in 1900, but 59.5.

Of the individual states in this division, New Jersey reported substantially the same improved area in 1900 as in 1870; Maine, Vermont, New York, and Pennsylvania showed increases in the area of improved farm land each decade down to 1890, and decreases since that year; Connecticut and New Hampshire, continuous decreases since 1860; Rhode Island, since 1850, except in the decade 1870 to 1880; and Massachusetts, since 1850, except in the decades 1850 to 1860 and 1870 to 1880.

A portion of the decrease in improved farm land in these states is due to the inclusion within city limits of former farm areas, but the greater portion is due to the change in the character of agricultural operations, and the new methods adopted for securing the greatest income from farm lands. The competition of Western land has rendered the cultivation of cereals, with the possible exception of corn in some localities, less profitable than formerly, and this has led to a gradual decrease in the area of land devoted to such crops. At the same time, the growth of city population in these states has stimulated certain special branches of agriculture, notably dairying and market gardening. These changes have led to a natural selection of land according to its adaptability to special uses. The most fertile and most easily tilled lands have been retained under cultivation or have been converted into permanent meadows and made increasingly productive, while less fertile lands that are plowed with difficulty, and meadow land which can not be mown by machines, have been, in many cases, converted into permanent pastures. The resulting increased average fertility of plow and meadow lands enables the farmers to raise on a smaller area the winter feed for the animals that can be kept on the enlarged area of partially exhausted pasture land during the summer. The increasing cultivation of forage crops, the use of the silo, and the larger acreage of corn grown and fed on the farm, are all factors contributing to the same end—a decrease in the total area required to produce the winter feed for the farm animals. No such improvement has been made in the pasture lands; hence, there is a readjustment of the total farm area, involving a reduction of meadow and plow land and an increase in that used for pasture. The tendency toward this change—arising from the increased average productiveness of the soil still under plow or mower—is enhanced by the custom, growing among Eastern farmers, of purchasing feed produced in the West. This practice lessens the demand for meadow and plow land, and results in an increase in the area used for pasture, so that a greater proportion of farm land is each year being considered as unimproved.

In the South Atlantic division, the area and per cent of farm land improved increased in each decade, except in that from 1860 to 1870, when the area decreased, though the per cent increased. The decrease in area in that decade was due to the Civil War and to the defective reports of the census of 1870. Delaware showed a decrease in the last ten years, largely due to causes similar to those described as caus-

ing the decline in the North Atlantic states. In the District of Columbia, the area of improved farm land has decreased in the past twenty years, owing principally to the utilization of former farm areas for other than agricultural purposes. All the other states of this division show a continuous increase in improved farm area since 1870.

The North Central division shows a continuous increase in the area of improved farm land reported at each census since 1850. The same statement applies to each of the states in this division except Illinois, which showed a great increase in 1880, followed by a decrease in 1890. This irregularity was due to the faulty method of collecting statistics of meadow and permanent pasture land in 1880, as has been explained for the North Atlantic states. The influence of the same factors may be detected in Ohio also, although not to so marked a degree as in Illinois.

The statistics of improved farm land for the South Central states, as for the South Atlantic, show the effects of the Civil War and of the faulty enumeration of 1870 in the South. The division shows a marked increase in improved farm land area for each decade since 1870. As regards the individual states, the only decrease is for Texas in the decade 1890 to 1900. During this decade, the state increased its total farm area 74,400,080 acres, but its improved farm area decreased 1,170,139 acres, resulting in a decrease in the per cent of farm land improved from 40.4 to 15.6. The census figures, indicating an absolute decrease in the area of improved farm land, do not represent the facts, as during the decade Texas very greatly increased its area in cotton, cereals, and all other crops requiring the use of improved land. The seeming decrease is due to the fact that in 1890 the enumerators in some sections reported all fenced land as improved, thereby including under this head much land that in 1900 was reported as unimproved. The different methods employed in the two census years cause the figures of table II and Table 52 to conceal the increase in improved land that actually took place in the decade ending with 1900.

The Western division shows a continuous increase in the area of improved farm land reported at each census since 1850. All the states and territories in this division show an increase, with the exception of California, Nevada, and Oregon—which show decreases for the decade ending 1900, probably due to the faulty method of collecting data relative to improved farm land on the part of the enumerators of either the census of 1890 or 1900—and New Mexico, which shows a decrease for the decades ending 1860 and 1870, also undoubtedly due to faulty returns.

In 1850 only two states had more than 10,000,000 acres of improved land. They were New York, with 12,408,964 acres, and Virginia, with 10,360,135 acres. The same year Ohio reported 9,851,493 acres; Pennsylvania, 8,628,619; Georgia, 6,378,479; and Kentucky, 5,968,270.

There were four states reporting over 20,000,000 acres of improved land in 1900. The six states reporting the largest improved areas were Iowa, 29,897,552 acres; Illinois, 27,699,219; Kansas, 25,040,550; Missouri, 22,900,043; Texas, 19,576,076; and Ohio, 19,244,472. The relative number of acres of improved and unimproved land in farms is graphically presented for all the states and territories in Plates 7 and 10. The proportion of improved land to total area is given by counties in Plate 5 and the total number of improved and unimproved acres from 1850 to 1900 is shown in Plate 9.

INCREASE IN VALUE OF FARM PROPERTY.

Table 53 presents, by states and territories, the value and average value per farm and per acre of farm land, of all farm property, with improvements, including the value of implements and machinery, and of live stock on farms. Table 57 shows by decades the per cent of increase or decrease in such property values. In table VI is given a brief summary, by geographic divisions, of the value of all farm property at each decade, with the increase and per cent of increase. Tables VII and VIII present the average value of farm property per farm and per acre of farm land.

TABLE VI.—VALUE OF ALL FARM PROPERTY, BY GEOGRAPHIC DIVISIONS, WITH INCREASE AND PER CENT OF INCREASE BY DECADES: SUMMARY 1850 TO 1900.

A.—THE UNITED STATES.

CENSUS YEAR.	Value of all farm property.	Increase in decade.	Per cent of increase.
1900	$20,514,001,838	$4,431,734,149	27.6
1890	16,082,267,689	3,901,766,151	32.0
1880	12,180,501,538	3,235,643,789	36.2
1870[1]	8,944,857,749	964,364,686	12.1
1860	7,980,493,063	4,013,149,483	101.2
1850	3,967,343,580	.....	.....

B.—NORTH ATLANTIC DIVISION.

1900	2,950,532,628	[2]19,438,665	[2]0.7
1890	2,969,971,293	[2]226,596,184	[2]7.1
1880	3,196,567,477	249,109,627	8.5
1870[1]	2,947,457,850	493,325,976	20.1
1860	2,454,131,874	769,334,284	45.7
1850	1,684,797,590	.....	.....

C.—SOUTH ATLANTIC DIVISION.

1900	1,454,031,316	120,695,827	9.0
1890	1,333,395,489	280,238,914	26.6
1880	1,053,156,575	312,323,138	42.2
1870[1]	740,833,437	[2]466,542,007	[2]38.6
1860	1,207,375,444	501,166,963	71.0
1850	706,208,481	.....	.....

D.—NORTH CENTRAL DIVISION.

1900	11,504,919,848	2,987,223,117	35.1
1890	8,517,696,731	2,409,564,472	39.4
1880	6,108,132,259	1,999,473,676	48.7
1870[1]	4,108,658,583	1,585,251,711	62.8
1860	2,523,406,872	1,608,784,448	175.9
1850	914,672,424	.....	.....

[1] Values in gold. [2] Decrease.

TABLE VI.—VALUE OF ALL FARM PROPERTY, BY GEOGRAPHIC DIVISIONS, WITH INCREASE AND PER CENT OF INCREASE, BY DECADES: SUMMARY 1850 TO 1900—Continued.

E.—SOUTH CENTRAL DIVISION.

CENSUS YEAR.	Value of all farm property.	Increase in decade.	Per cent of increase.
1900	$2,815,823,408	$925,301,705	48.9
1890	1,890,521,698	600,224,633	46.5
1880	1,290,297,065	383,319,899	42.3
1870 [1]	906,977,166	[2] 765,140,005	[2] 45.8
1860	1,672,117,171	1,026,859,016	159.1
1850	645,258,155	.....	.....

F.—WESTERN DIVISION.

1900	1,714,593,969	343,011,491	25.1
1890	1,370,682,478	838,334,316	157.5
1880	532,348,162	291,417,449	121.0
1870 [1]	240,930,713	117,469,011	95.1
1860	123,461,702	107,054,772	652.5
1850	16,406,930	.....	.....

G.—ALASKA AND HAWAII.[3]

1900	74,100,674	.....	.....

[1] Values in gold.
[2] Decrease.
[3] No report prior to 1900.

TABLE VII.—AVERAGE VALUE PER FARM OF ALL FARM PROPERTY, BY GEOGRAPHIC DIVISIONS: SUMMARY 1850 TO 1900.

GEOGRAPHIC DIVISIONS.	1900	1890	1880	1870 [1]	1860	1850
The United States	$3,574	$3,523	$3,038	$3,363	$3,904	$2,738
North Atlantic	4,355	4,510	4,592	4,899	4,344	3,440
South Atlantic	1,511	1,779	1,634	1,980	3,999	2,84[illegible]
North Central	5,238	4,427	3,597	3,652	3,268	2,090
South Central	1,698	1,740	1,455	1,775	4,515	2,418
Western	7,059	9,396	6,358	4,997	3,562	2,444
Alaska and Hawaii [2]	32,429	.....	.....	.....	.....	.....

[1] Values in gold.
[2] No report prior to 1900.

TABLE VIII.—AVERAGE VALUE PER ACRE OF ALL FARM PROPERTY, BY GEOGRAPHIC DIVISIONS: SUMMARY 1850 TO 1900.

GEOGRAPHIC DIVISIONS.	1900	1890	1880	1870 [1]	1860	1850
The United States	$24.39	$25.81	$22.72	$21.94	$19.60	$13.51
North Atlantic	45.11	47.34	47.02	46.98	40.18	30.54
South Atlantic	13.94	13.31	10.38	8.21	11.33	7.56
North Central	36.25	33.20	29.51	29.51	23.39	14.59
South Central	10.93	12.08	9.67	9.13	14.05	8.31
Western	18.28	23.99	20.32	14.85	9.71	3.52
Alaska and Hawaii [2]	28.39	.....	.....	.....	.....	.....

[1] Values in gold.
[2] No report prior to 1900.

The value of farm property in 1900 was $20,514,001,838, a gain in ten years of $4,431,734,149, or considerably more than the total value reported fifty years before. The absolute increase in value for the last decade did not greatly differ from that for the ten years 1850 to 1860, which was $4,013,149,483, or from that for 1880 to 1890, which was $3,901,766,151. The percentages of gain for the three periods, however, were quite different, being for the decade 1850 to 1860, 101.2 per cent; 1880 to 1890, 32.0 per cent; and for the last decade, 27.6 per cent.

In the North Atlantic states the total value of farm property increased during each decade from 1850 until 1880, since which year it has decreased. The greatest increase reported was for the ten years from 1850 to 1860. This decade witnessed the largest per cent of gain in all the geographic divisions.

In the South Atlantic states there was an especially great increase from 1850 to 1860. Then followed the Civil War with its great destruction of farm property, and from this disaster most of the states did not fully recover before 1890.

The South Central states also suffered very severely from the Civil War, and notwithstanding the opening up of vast areas of new land, did not recover until 1890. The value of most of this new land was so low that the gain in the value of farm property during the last decade did not keep pace with the increase in farm area.

The North Central states have made large gains during each decade, and over one-half of the increase in the last fifty years in the value of all farm property has been in this division.

The Western states have made remarkable progress in each decade, the greatest gain, however, occurring in the period from 1880 to 1890.

The average value per acre of all farm property in the United States increased from $13.51 in 1850 to $25.81 in 1890. In 1900 it was $24.39, the decrease being due to the extensive additions of cheap land in the West and South, which more than counterbalanced the actual increase in value of the great majority of American farms. The average value for the South Central states reached its maximum in 1860, that for the North Atlantic and Western in 1890, and for the South Atlantic and North Central in 1900.

There is but little correspondence between average values per farm and per acre in the different sections, owing to the great variation in the size of farms. A comparison of the figures for the South Atlantic states in tables VII and VIII, shows plainly the gradual subdivision of farm holdings there, and the same tendency is shown to a lesser extent in the South Central states.

CAPITAL INVESTED IN AGRICULTURE COMPARED WITH THAT IN MANUFACTURES.

The Twelfth Census reports a total capital of $9,874,664,087 invested in manufactures. Of this amount, $1,030,190,003 represents the value of land; $1,456,983,130, that of buildings; $2,559,766,383, that of machinery, tools, and implements; and $4,827,724,571, that of cash and sundries, including under this head raw materials, stock in process of manufacture, finished products on hand, amounts due from the sale of finished products, and cash on hand.

It is impossible to prepare a statement of the capital invested in agriculture to correspond exactly with the foregoing exhibit for manufactures, as the only forms of agricultural capital reported by the census are those which correspond to the fixed capital of manufactures, comprised in the first three items above mentioned and aggregating $5,046,939,516.

The fixed capital of agriculture, comprising the value of the land, buildings, and improvements, of implements and machinery, and of live stock, was valued, June 1, 1900, at $20,514,001,838, or more than four times that of manufactures. Judged by the standard of fixed capital, therefore, agriculture leads manufactures by a ratio of more than 4 to 1.

Corresponding to the "live capital" of manufactures, included under the head of "cash and sundries," are the value of all farm products on hand June 1, 1900, the money due from their sales, the value of the growing crops of the year 1900, and the cash on hand and such cash in bank as is kept for use as supplementary capital in farming operations, but not permanent investments either in bank or in industries other than agriculture. These items have an enormous aggregate value, of which no definite statement can be made. It does not, however, constitute as large a per cent of the total farm capital as the "live capital" forms of the total invested in manufactures.

But even if this "live capital" were to be wholly disregarded and comparisons were to be made between the fixed capital of agriculture and the total capital, both fixed and live, of manufactures, investments in agriculture would still be more than twice as great as in manufactures. If conservative estimates of the "live capital" of agriculture be included, it is found that the industry has a total investment perhaps two and one-fourth times as great as that in manufactures. In either case, judged by investment, agriculture still leads manufactures by a wide margin.

INCREASE IN VALUE OF FARM LAND.

The general statistics of the value of farm land, including the value of improvements such as buildings, fences, and drains, are presented in Table 54 for each decade since 1850. Summaries of these statistics, by geographic divisions, are given in tables IX, X, and XI. The facts given in table IX for the United States are graphically presented in Plate 9.

TABLE IX.—VALUE OF FARMS WITH IMPROVEMENTS, INCLUDING BUILDINGS, BY GEOGRAPHIC DIVISIONS, WITH INCREASE AND PER CENT OF INCREASE BY DECADES: SUMMARY 1850 TO 1900.

A.—THE UNITED STATES.

CENSUS YEAR.	Value of farms.	Increase by decade.	Per cent of increase.
1900	$16,674,690,247	[1]$3,395,437,598	25.6
1890	13,279,252,649	3,082,155,873	30.2
1880	10,197,096,776	2,753,042,314	37.0
1870[2]	7,444,054,462	799,009,455	12.0
1860	6,645,045,007	3,373,469,581	103.1
1850	3,271,575,426	.....	.....

[1] Including value of farms in Alaska and Hawaii, not enumerated prior to 1900.
[2] Values in gold.

TABLE IX.—VALUE OF FARMS WITH IMPROVEMENTS, INCLUDING BUILDINGS, BY GEOGRAPHIC DIVISIONS, WITH INCREASE AND PER CENT OF INCREASE, BY DECADES: SUMMARY 1850 TO 1900—Continued.

B.—NORTH ATLANTIC DIVISION.

CENSUS YEAR.	Value of farms.	Increase in decade.	Per cent of increase.
1900	$2,477,265,688	[1]$61,934,849	12.4
1890	2,539,200,537	[1]264,242,865	[1]9.4
1880	2,803,443,402	276,219,244	10.9
1870[2]	2,527,224,158	405,275,683	19.1
1860	2,121,948,475	666,939,680	45.8
1850	1,455,008,795	.....	.....

C.—SOUTH ATLANTIC DIVISION.

1900	1,206,349,618	71,029,948	6.3
1890	1,135,319,670	243,545,513	27.3
1880	891,774,157	281,345,962	46.1
1870[2]	610,428,195	[1]398,184,870	[1]39.5
1860	1,008,613,065	432,022,482	74.9
1850	576,590,583	.....	.....

D.—NORTH CENTRAL DIVISION.

1900	9,563,880,438	2,494,113,284	35.3
1890	7,069,767,154	1,940,326,067	37.8
1880	5,129,441,087	1,677,838,828	48.6
1870[2]	3,451,602,259	1,321,588,796	62.0
1860	2,130,013,463	1,378,290,330	183.4
1850	751,723,133	.....	.....

E.—SOUTH CENTRAL DIVISION.

1900	2,072,671,891	632,649,293	43.9
1890	1,440,022,598	458,466,909	46.7
1880	981,555,689	303,289,014	44.7
1870[2]	678,266,675	[1]635,715,009	[1]48.4
1860	1,313,981,684	834,417,701	174.0
1850	479,563,983	.....	.....

F.—WESTERN DIVISION.

1900	1,294,479,856	199,537,166	18.2
1890	1,094,942,690	704,060,249	180.1
1880	390,882,441	214,349,266	121.4
1870[2]	176,533,175	106,044,855	150.4
1860	70,488,320	61,799,388	711.2
1850	8,688,932	.....	.....

G.—ALASKA AND HAWAII.[3]

1900	60,042,756	.....	.....

[1] Decrease.
[2] Values in gold.
[3] No report prior to 1900.

TABLE X.—AVERAGE VALUE PER FARM OF FARM LAND WITH IMPROVEMENTS, INCLUDING BUILDINGS, BY GEOGRAPHIC DIVISIONS: SUMMARY 1850 TO 1900.

GEOGRAPHIC DIVISIONS.	1900	1890	1880	1870[1]	1860	1850
The United States	[2]$2,905	$2,909	$2,544	$2,799	$3,251	$2,258
North Atlantic	3,656	3,856	4,027	4,201	3,756	2,971
South Atlantic	1,254	1,515	1,384	1,632	3,240	2,323
North Central	4,354	3,675	3,021	3,068	2,758	1,718
South Central	1,250	1,325	1,107	1,327	3,548	1,797
Western	6,329	7,506	4,669	3,662	2,033	1,295
Alaska and Hawaii[3]	26,277	.....	.....	.....	.....	.....

[1] Values in gold.
[2] Including value of farms in Alaska and Hawaii, not enumerated prior to 1900.
[3] No report prior to 1900.

TABLE XI.—AVERAGE VALUE PER ACRE OF FARM LAND WITH IMPROVEMENTS, INCLUDING BUILDINGS, BY GEOGRAPHIC DIVISIONS: SUMMARY 1850 TO 1900.

GEOGRAPHIC DIVISIONS.	1900	1890	1880	1870[1]	1860	1850
The United States	[2]$19.82	$21.31	$19.02	$18.26	$16.32	$11.14
North Atlantic	37.87	40.47	41.24	40.28	34.74	26.38
South Atlantic	11.57	11.34	8.79	6.77	9.47	6.17
North Central	30.14	27.55	24.78	24.79	19.74	11.99
South Central	8.04	9.20	7.35	6.83	11.04	6.18
Western	13.80	23.16	14.92	10.88	5.54	1.86
Alaska and Hawaii[3]	23.01	.....	.....	.....	.....	.....

[1] Values in gold.
[2] Including value of farms in Alaska and Hawaii, not enumerated prior to 1900.
[3] No report prior to 1900.

In these tables can be traced the results of all the factors affecting the production and distribution of agricultural produce in the last half century. Among these factors, the state of the soil, whether barren or fertile, and the amount and character of the rainfall may properly be called primary or fundamental, while the most important secondary factors are the employment of work animals, the use of machinery, the application of fertilizers, the practice of irrigation, and the supply and skill of labor. Distance from market, transportation facilities, and the general character, tenure, education, and social conditions of the farming population also affect land values.

Prior to 1850 agricultural operations, with the exception of cotton culture, were generally conducted on a small scale, and owing to the lack of railroads, production for the general market was mostly confined to territory bordering upon the oceans and upon the inland lakes, rivers, and canals. Over three-fourths of the total value of farm land was found east and south of the Ohio River. The great majority of the families engaged in agricultural work lived in inferior houses and used rude implements, producing but little more than was required for their own use.

Land values reflected these conditions. The farms of the North Atlantic division, located near good markets and enjoying the best transportation facilities of the period, comprised 18.8 per cent of the total farm acreage of the country and represented 44.5 per cent of the total value. Near the cities in this section, the average land values had advanced considerably, but in more remote localities they were still low. In Connecticut and Massachusetts they were $30.51 and $32.50 per acre, respectively, while in Vermont and Maine they were only $15.36 and $12.04, the latter figure being only slightly greater than that for the North Central states, where the average was $11.99. In the South Atlantic states the average value of farm land per acre was $6.17; in the South Central, $6.18; and in the Western states, only $1.86.

The decade 1850 to 1860 was a period when American inventors were earnestly endeavoring to improve all classes of farm implements and machinery. It witnessed the beginning of the practical use of horse-driven machinery for cutting and threshing grain, the first of a series of changes that subsequently revolutionized the methods of work on all farms in the United States outside of those devoted to cotton growing. During the decade, transportation by rail from the Central West to Chicago and Milwaukee, and thence by lake and canal to the seaboard, reached such a stage of development as to enable the farmers of that section to compete successfully in the markets of the world. These factors stimulated the settlement of the North Central states and assisted in opening a market for our breadstuffs in Europe. The repeal of the corn laws in Great Britain and the rapid development of manufacturing in that country contributed to the same end; and the growth of manufacturing in this country and abroad also created a demand for cotton, which, with the increasing demand for grain, gave a greater impetus to American agriculture than had ever before been experienced.

Moreover, the discovery of gold in California and Australia, and the resulting vast increase in the production of that metal affected the whole scale of prices and became a factor in increasing farm values and in bringing to this country great numbers of immigrants. The potato famine in Ireland and the revolution of 1848 in Germany also assisted in setting in motion an important movement of population toward America. These immigrants settled in all the Northern states, westward as far as Wisconsin. As a rule, they were thrifty, industrious, and experienced in European methods of agriculture. The cheapness of the new lands of the West and the growing markets for American agricultural products caused great numbers of people to move from the New England and other Eastern states to the Middle West and Southwest. From 1850 to 1860 the population of Wisconsin increased 470,490; of Michigan, 351,459; of Texas, 391,623; and that of other Western and Southwestern states in correspondingly large numbers. This growth was principally due to the influx of settlers.

The same decade witnessed a great development on the Pacific coast mainly due to the discovery of gold. The rapid settlement of California and the prosperity which followed stimulated the opening of new lands all along the Pacific coast. Oregon had been partly developed by the Hudson Bay Company and by settlers from the East who had gone overland in 1843.

The result of all these factors is seen in the increase in the number of farms shown in table I, in the increase in farm acreage shown in table II, and in the increase in values of farm lands shown in tables IX, X, XI, and Table 53. The value of farm lands for the whole United States more than doubled, and a marked advance was shown in all parts of the country. The average value per acre of farm land in the United States increased $5.18, a greater gain than was chronicled in the succeeding forty years. The increase in the

North Atlantic states was from $26.38 to $34.74; in the South Atlantic, from $6.17 to $9.47; in the North Central, from $11.99 to $19.74; in the South Central, from $6.18 to $11.04; and in the Western, from $1.86 to $5.54. In Plate 11 is given a graphic presentation of the changes during this decade in farm land values in the various sections of the country.

In the decade from 1860 to 1870 the Civil War directly and indirectly wrought great changes in the agriculture of the country. The organization of great armies increased the market demand for food products in the North. The supply of labor was diminished, for the time being, but was increased later by the great immigration movement that had begun in the preceding decade. Agricultural production in the North was greatly extended, and land values continued to rise. Thousands of miles of railroad were constructed, and the Union Pacific, completed in 1869, opened a new pathway to the Pacific coast. The passage of the homestead law in 1862, granting land to the actual settler on the public domain, made it easier for all, and especially for those having little or no capital, to obtain farm homes, and improving transportation facilities made agriculture on the new farms profitable.

As a result, many persons, and especially soldiers of the Northern Army, moved at the close of the Civil War from the East to the West. Land values in that section advanced more rapidly than elsewhere. In fact, the westward movement of the younger farmers and the increasing competition of the cheaper and more fertile grain fields of the West, caused land values in some parts of New England to suffer a slight decrease. The growing demand for American breadstuffs and meat products in Europe checked, for a time, the tendency toward further decrease in land values in the East by maintaining high prices for agricultural products in all parts of the country. The extent of that demand and its influence in stimulating production and settlement in the West, and its temporary influence in the East, are shown by the fact that agricultural exports increased from $256,560,972 in 1860 to $361,188,483 in 1870, although by 1870 cotton exportation had not attained the proportions which were reached a little later.

The conditions in the South in this decade were radically different from those in the North. As a result of the war, the markets of the South were destroyed, investments in slaves were lost, and land improvements deteriorated. The close of the war found the planters bankrupt, their credit destroyed, and agriculture and all business paralyzed by lack of working capital. Vast areas of land went out of cultivation, the reported acreage of farm land in all the Southern states was less in 1870 than in 1860, and the total and average values of land everywhere decreased.

The inflation of the currency during the war affected values expressed in paper money, exaggerating advances and concealing declines. The real change during the decade is therefore better indicated by comparing the gold values of 1870 with those of 1860. The average increase in land values in the North Atlantic, North Central, and Western divisions was over $5 per acre, while in the two Southern divisions there were decreases of from $3 to $5 per acre.

The great advances in farm-land values, during the decade from 1860 to 1870 in the North Central and Western states, and the coincident decline of such values in the South, are shown in Plate 11.

The railroads constructed in the latter part of the decade 1860 to 1870, and in the first half of the succeeding decade, were the principal factors in determining the movement of farm land values in the decade ending with 1880. The aggregate mileage of railroads constructed from 1868 to 1878 in each of the five geographic divisions was as follows: North Atlantic, 6,665 miles; South Atlantic, 2,616 miles; North Central, 20,757 miles; South Central, 5,145 miles; and Western, 4,655 miles. The new land opened to settlement and brought into cheap and direct communication with the markets of the world, stimulated immigration to such an extent, that, during the decade 1870 to 1880, 2,812,191 persons came to the United States, a large proportion of whom settled in the Middle West. New markets for agricultural products were opened abroad, and the value of agricultural exports increased from $361,188,483 in 1870 to $685,961,091 in 1880.

The "new process" of reducing wheat to flour, which was introduced in Minneapolis, Minn., in the early seventies, exerted a powerful influence in opening the spring-wheat section of the Northwest to settlement. Prior to that mechanical innovation in flour making, it had been impossible to remove all the fine particles of bran from the flour of spring wheat, and as a result, the flour was dark in color, absorbed moisture in warm climates, and brought comparatively low prices in the markets of the world. By the new process the flour produced from the hard spring wheat of the Northwest was as white as any, and being richer in gluten, it soon commanded a higher price than flour made from winter wheat. Consequently the price of northern spring wheat advanced, greatly stimulating the wheat-raising industry and increasing the profits of farming in Minnesota and the Dakotas. Between 1870 and 1880 the population of these three states increased from 453,887 to 915,950.

With the readjustment which took place during this decade in the labor conditions of the South, agricultural operations in that section began to assume their old proportions. The growing demand for cotton in the factory centers of the world stimulated its cultivation, and soon resulted in a great increase in production. The extent and rapidity of the recovery from the condition of demoralization following the Civil War are shown by the fact that, while in 1860, the last year of uninterrupted slave labor, 5,387,052 bales of an average weight of 445 pounds were produced, in 1880 the product was

5,755,359 bales of an average weight of 453 pounds. The reestablishment of Southern agriculture on a solid basis assisted in restoring the values of the old farm lands of the South.

The increased demand for cotton resulted in a great movement of population from the South and elsewhere to the new cotton lands of Texas and the Southwest. Large areas were settled, and land values advanced there as in the South and West.

The growing European demand for American beef, and the increasing consumption of wool in American factories, encouraged the keeping of live stock on the public domain of the West, and especially in Texas. Steers and sheep began to take the place of buffaloes, and the rapid development of the range industry assisted in enhancing the values of the Western farm lands reported by the census of 1880.

The panic of 1873, brought about by the excessive construction of railroads and by over speculation, checked many lines of industry, and for want of remunerative occupations in the towns and cities a proportionally greater movement of population toward the farming sections followed. The panic resulted in the reorganization of many railroads, and in lower transportation rates, which in turn assisted in encouraging settlement on the new farm lands of the West.

During this decade, the cost of transporting agricultural products from the West to the seaboard constantly decreased, and the competition between the cheap, fertile prairies of the West and the less productive lands of the East became very apparent. The grain-raising sections of the East suffered most, and land values declined there, while in the West they greatly increased. Sections of the East devoted to dairy farming, market gardening, and fruit growing suffered less, as it was impracticable, except during a limited portion of the year, to bring the products of these industries from the Western states and deliver them in good condition in Eastern markets.

In this decade, then, land values in the South advanced, and the effects of the Civil War were partially overcome; there was a still greater advance in the North Central and Western states; but the East began to be adversely affected, and in many sections there was a marked decline in the average as well as the total value of farm lands.

The actual decrease in value was nowhere so great as would appear from a comparison of values in 1870, expressed in legal tender, with those in 1880, after the resumption of specie payment. The only proper comparison is with the gold values for 1870, as given in tables IX, X, and XI. Further consideration should also be given to the fact, already discussed, that in 1880 there was in the North Atlantic states an excess of at least 2,500,000 acres in the area of land reported, with no corresponding excess of land values. This is responsible for an apparent decline in average values per acre in some states of that division. This is plainly shown in the case of Pennsylvania for which the census figures indicate a gain even over the values of 1870. The greater change in average values in New York from 1870 to 1880 than in the next decade was due to the same cause.

In Plate 11 is a presentation of the changes in land values, during this period, in the various sections of the country.

During the decade 1880 to 1890 there was continued development of all the factors which, in the preceding ten years, had caused land values to advance in the West and South and to decline in the East. Thousands of miles of railroad were constructed and freight charges were constantly reduced. The introduction of new farming machinery cheapened production in the West, and land values rose generally there and in the South, but showed a continued tendency to decline in the East. The introduction of refrigerator cars, about 1878, rendered dairying in the West more profitable by furnishing the means of marketing the produce in good condition in the East. The local monopoly of eastern dairy markets was broken, and the value of grazing land in New York and in New England declined as that of wheat-growing land had done in the preceding decade.

While the introduction of refrigerator processes had a depressing effect upon land values in the old dairy sections of the East, it proved a powerful factor in increasing values all through the central and far West. It assisted in opening new markets in Europe for American meat, and this stimulated cattle interests in the far West and in the corn-growing and cattle and hog-raising sections of the central West. The great demand for wheat in Europe in the early eighties and the continuously increasing demand for cotton combined to give to land everywhere, except in the North Atlantic states, values in excess of those reported in 1880.

For the country as a whole, the census statistics of total farm values present a fairly correct exhibit of the changes from 1880 to 1890. The averages given are valuable indexes of those changes for all parts of the country except the North Atlantic states and a few of the North Central states, particularly Ohio, Michigan, Indiana, and Illinois. The failure of average values to show the actual changes in these states is due to the excess of acreage reported in 1880. The effect of this error is shown in a marked degree in the statistics for New York. In that state there was a decline in total land values from 1880 to 1890 of $88,049,455, or 8.3 per cent, while the average value per acre declined only 33 cents, or less than one-tenth of 1 per cent. The larger percentage represents more nearly the actual decrease in the average as well as in the total values of farm lands in the state during the decade.

The greater portion of the decline in the North At-

lantic states was in sections that had been previously engaged chiefly in dairying and grain raising. In communities where truck gardening or fruit growing had engaged the interests of the farmers, the decreases were smaller, while in a few localities farm values advanced during the decade.

The changes of the ten years from 1870 to 1880 in land values are exhibited in Plate 11. The map portrays fairly well the changes in all parts of the country except in the North Atlantic states, where, for the reason stated, it fails to show the exact decline during the decade.

For a considerable portion of the decade 1890 to 1900, land values were depressed in all parts of the country by the low prices of wheat, cotton, and other staple agricultural products. These low prices checked for a time the advance of values in the West and South, and still further depressed values in the North Atlantic states; but a general upward movement in prices in the latter portion of the decade checked the decline of land values in the older sections, and the tendency to advance again became dominant in the newer states. The net results of the changes in the decade were a decrease in the average values of land in the North Atlantic states, and an increase in all other parts of the country. A number of apparent exceptions to this statement can be found in tables here presented, and are shown upon the map. The average value of farm land in the South Central and Western states was less than it was ten years before. This was due, not to a decline in land values, but to the inclusion in farms of vast areas of cheap land formerly a part of the public domain. It is possible, also, that in 1890 the enumerators returned too great a value for farm lands, or that in 1900 the values reported were too small. The latter is more probable than the former, owing to the fact that in 1900 some enumerators are known to have omitted the value of buildings from their statements of total values.

In certain sections of Florida and California, and near the great cities of the East and the Central West, where market gardening and fruit growing have attained considerable proportions, there was a general advance in values, although outside of these sections the tendency was in the opposite direction. The financial depression of 1894, like that of 1873, lessened the demand for labor in cities and towns, discouraged the movement of population from farm to town, and resulted in an increase over the preceding decade in the number of farms and the acreage of farm land opened. The changes in land values in the decade ending with 1900, as well as those of the other decades reviewed, are graphically shown in Plate 11.

In 1850 only eight states reported farm land to the value of $100,000,000 or over. They were: New York, $554,546,642; Pennsylvania, $407,876,099; Ohio, $358,758,603; Virginia, $216,401,543; Kentucky, $155,021,262; Indiana, $136,385,173; New Jersey, $120,237,511; and Massachusetts, $109,076,347.

In 1900 there were seven states with land values of over $800,000,000, as follows: Illinois, $1,765,581,550; Iowa, $1,497,554,790; Ohio, $1,036,615,180; Pennsylvania, $898,272,750; New York, $888,134,180; Missouri, $843,979,213; and Indiana, $841,735,340.

VALUE OF IMPLEMENTS AND MACHINERY ON FARMS.

The year 1850 practically marks the close of the period in which the only farm implements and machinery, other than the wagon, cart, and cotton gin, were those which, for want of a better designation, may be called implements of hand production. The old cast-iron plows were in general use. Grass was mowed with the scythe, and grain was cut with the sickle or cradle and thrashed with the flail. The cost of the simple farm machinery then in use was relatively much higher than at the present time. The last half century has witnessed a revolution in agricultural methods, and the new implements and machines introduced would require more than a page to catalogue.

Table 55 gives, by states and territories, the total value of farming implements and machinery for the census years 1850 to 1900, and also the average values of such implements per farm and per acre. Tables XII, XIII, and XIV present, by geographic divisions, summaries of the total and average value, per farm and per acre, of farm machinery at each census year; and the increase and per cent of increase in the total value for each decade. The changes in the value of farm implements and machinery shown for the United States in table XII are more graphically demonstrated by Plate 10.

TABLE XII.—VALUE OF FARM IMPLEMENTS AND MACHINERY, BY GEOGRAPHIC DIVISIONS, WITH INCREASE AND PER CENT OF INCREASE BY DECADES: SUMMARY 1850 TO 1900.

A.—THE UNITED STATES.

CENSUS YEAR.	Value of farm implements and machinery.	Increase by decade.	Per cent of increase.
1900	$761,261,550	[1]$267,014,083	54.0
1890	494,247,467	87,727,412	21.6
1880	406,520,055	135,606,377	50.1
1870[2]	270,913,678	24,795,537	10.1
1860	246,118,141	94,530,503	62.4
1850	151,587,638	.....	.....

B.—NORTH ATLANTIC DIVISION.

1900	152,805,090	35,936,838	30.7
1890	116,868,252	9,784,826	9.1
1880	107,083,426	17,405,860	19.4
1870[2]	89,677,566	15,852,898	21.5
1860	73,824,668	19,654,498	36.3
1850	54,170,260	.....	.....

C.—SOUTH ATLANTIC DIVISION.

1900	53,318,890	16,874,872	46.3
1890	36,444,018	5,631,911	18.3
1880	30,812,107	10,786,847	53.9
1870[2]	20,025,260	[3]14,020,511	[3]41.2
1860	34,045,771	9,389,226	38.1
1850	24,656,545	.....	.....

[1] Including values in Alaska and Hawaii not enumerated prior to 1900.
[2] Values in gold.
[3] Decrease.

TABLE XII.—VALUE OF FARM IMPLEMENTS AND MACHINERY, BY GEOGRAPHIC DIVISIONS, WITH INCREASE AND PER CENT OF INCREASE, BY DECADES: SUMMARY 1850 TO 1900—Continued.

D.—NORTH CENTRAL DIVISION.

CENSUS YEAR.	Value of farm implements and machinery.	Increase by decade.	Per cent of increase.
1900	$364,062,060	$111,836,745	44.3
1890	252,225,315	45,992,043	22.3
1880	206,233,272	82,657,211	66.9
1870[1]	123,576,061	50,759,525	69.7
1860	72,816,536	37,252,632	104.7
1850	35,563,904	.....	.....

E.—SOUTH CENTRAL DIVISION.

1900	126,692,285	68,348,513	117.1
1890	58,343,772	11,755,148	25.2
1880	46,588,624	16,741,044	56.1
1870[1]	29,847,580	[2]31,435,478	[2]51.3
1860	61,283,058	24,535,283	66.8
1850	36,747,775	.....	.....

F.—WESTERN DIVISION.

1900	52,897,645	22,531,535	74.2
1890	30,366,110	14,563,484	92.2
1880	15,802,626	8,015,415	102.9
1870[1]	7,787,211	3,639,103	87.7
1860	4,148,108	3,698,954	823.5
1850	449,154	.....	.....

G.—ALASKA AND HAWAII.[3]

1900	11,485,580	.....	.....

[1] Values in gold.
[2] Decrease.
[3] No report prior to 1900.

TABLE XIII.—AVERAGE VALUE OF IMPLEMENTS AND MACHINERY PER FARM, BY GEOGRAPHIC DIVISIONS: SUMMARY 1850 TO 1900.

GEOGRAPHIC DIVISIONS.	1900	1890	1880	1870[1]	1860	1850
The United States	$133	$108	$101	$102	$120	$105
North Atlantic	226	177	154	149	131	111
South Atlantic	55	49	48	54	113	99
North Central	166	131	121	110	94	81
South Central	76	54	53	58	165	138
Western	218	208	189	162	120	67
Alaska and Hawaii[2]	5,027	.....	.....	.....	.....	.....

[1] Values in gold.
[2] No reports prior to 1900.

TABLE XIV.—AVERAGE VALUE OF IMPLEMENTS AND MACHINERY PER ACRE OF FARM LAND, BY GEOGRAPHIC DIVISIONS: SUMMARY 1850 TO 1900.

GEOGRAPHIC DIVISIONS.	1900	1890	1880	1870[1]	1860	1850
The United States	$0.90	$0.79	$0.76	$0.66	$0.60	$0.52
North Atlantic	2.34	1.86	1.58	1.43	1.21	0.98
South Atlantic	0.51	0.36	0.30	0.22	0.32	0.26
North Central	1.15	0.98	1.00	0.89	0.67	0.57
South Central	0.49	0.37	0.35	0.30	0.52	0.47
Western	0.56	0.64	0.60	0.48	0.33	0.10
Alaska and Hawaii[2]	4.40	.....	.....	.....	.....	.....

[1] Values in gold.
[2] No report prior to 1900.

The values of farming implements on hand at the date of census enumeration increased in each decade since 1850 in the North Atlantic, North Central, and Western divisions, while in the South Atlantic and South Central states they showed a tremendous decline in the decade 1860 to 1870, again reflecting the disastrous effect of the Civil War. The percentages of increase in the North Atlantic and North Central divisions were least for the decade 1880 to 1890, and in the Western states, for the decade 1890 to 1900. In the Civil War period the value of farming implements and machinery in the South Atlantic states declined $14,020,511, or 41.2 per cent, and in the South Central, $31,435,478, or 51.3 per cent. After 1870 the values increased in both divisions, but not until 1890 did the aggregate of such gain suffice to give the South Atlantic division as large a reported value of this class of farm property as it had in 1860; and in the South Central states, notwithstanding the great growth of population, the farmers did not, until 1900, report as large investments in machinery as they did prior to the war.

Each of the divisions showed a larger absolute increase in the value of implements and machinery in the last decade than in the one preceding it. A part of this increase in each case is unquestionably more apparent than real, and was due to more complete reports in 1900 than ever before of the value of mechanical appliances on farms. In 1850 the instructions to enumerators expressly directed them to include the value of wagons in that of farm implements and machinery. No specific instructions relating to this point were again given until 1900. The instructions for the census of 1900 made mention in detail of wagons and carriages as well as of all the most important mechanical appliances in use on farms, and directed enumerators to include all these in their statements of the total value of farming implements and machinery. In this respect the last enumeration followed the method of the census of 1850, and the large percentages of gain shown in the tables for 1900 may be considered as evidence that in the years 1860 to 1890 some of the enumerators, at least, omitted wagons and carriages from their reports.

During the period from 1850 to 1900 the average value of implements and machinery per farm increased to a greater extent in the North Atlantic and Western divisions than elsewhere. The high figures in the North Atlantic division are probably due to a considerable extent to the larger relative number of wagons and carriages in use by the farmers in that section, while the high average for the Western states reflects merely the larger average size of farms. The extremely high average for Hawaii is due to the costly machinery used upon the sugar plantations. The machinery in use upon the smaller plantations of Louisiana was even more costly in proportion than that in Hawaii, but, owing to the great number of farms in the South Central division, does not increase the average per farm as in Hawaii. The decrease in the average value of implements and machinery per farm in the South Atlantic and South Central states during the last fifty years was due to the subdivision of farms in those sections, and to the fact that in the production of cotton, the great staple of that region, but few costly implements are used. It was caused in part, also, by the fact that a great portion of the cotton is now ginned in establishments not on farms, so that the value of ginning machinery does not appear to as great an extent in the farm reports as it did in earlier years.

The average value of farming machinery per acre of

farm land increased steadily in the North Atlantic and North Central divisions from 1850 to 1900; in the Western division, except from 1890 to 1900; and in the South Atlantic and South Central divisions, since the Civil War. It was highest in Hawaii, next highest in the North Atlantic states, and lowest in the South Central states.

The five states with the highest values of farming implements and machinery reported in 1900 were Iowa, with $57,960,660; New York, with $56,006,000; Pennsylvania, with $50,917,240; Illinois, with $44,977,310; and Ohio, with $36,354,150. The highest averages per farm were reported by Hawaii, District of Columbia, Nevada, North Dakota, California, Montana, New Jersey, and Iowa, in the order named; and the highest averages per acre, by the District of Columbia, Hawaii, Alaska, New Jersey, Massachusetts, and Rhode Island.

For the United States the value of machinery per acre of farm land has increased since 1850 from $0.52 to to $0.90, or nearly 80 per cent, and since 1880 from $0.76 to $0.90, or about 20 per cent. These increases in money value, however, do not measure the added usefulness of the new machinery. That is measured principally by the degree to which the machinery saves human labor by substituting the power of animals or of steam. It is interesting, therefore, to inquire what changes have been made in the past fifty years in the use of animal power on farms in connection with these new machines. A comparison of human and animal labor on farms in relation to the acreage of crops cultivated can be made only for the period since 1880.

Table xv gives the number of males, exclusive of lumbermen and wood choppers, engaged in agriculture at different census years, the number of horses, mules, and asses on farms, and the acreage of all crops reported in 1880 and in subsequent years, with averages.

TABLE XV.—NUMBER OF MALES IN AGRICULTURE, NUMBER OF HORSES, MULES, AND ASSES ON FARMS, AND AREA OF LAND DEVOTED TO SPECIFIED CROPS, WITH AVERAGES: SUMMARY 1880 TO 1900.

ITEMS.	1900	1890	1880
Number of males in agriculture	[1]8,771,181	7,787,539	7,075,983
Number of horses, mules, and asses	[2]20,099,826	17,264,999	12,170,296
Acres of land in specified crops[3]	272,304,111	214,523,412	164,830,442
Average number of acres to one male worker	31.0	27.5	23.3
Average number of acres to one horse, etc.	13.5	12.4	13.5
Average number of horses to one male worker	2.3	2.2	1.7

[1] Exclusive of 578,740 children, under 16 years of age, reported in excess of number given for preceding census years. See table LXXIII and text relating thereto.
[2] Exclusive of colts under 1 year.
[3] Number of acres devoted to barley, buckwheat, corn, rice, oats, rye, wheat, hay, tobacco, cotton, hops, and sugar cane.

The number of acres of leading crops per male worker steadily increased, while the number per working animal was substantially the same in 1900 as in 1880. The increase in the productiveness of man's labor, therefore, is secured by the increased utilization of the power of the horse and the mule in driving farm machinery. The figures of the table indicate two important changes in the twenty years. One of these appears in the increase in the number of horses to each male worker from 1.7 to 2.3, a gain of about 35 per cent; the other is the increase in the number of acres cultivated to each male worker from 23.3 to 31.0, or about 34 per cent. From these figures it appears that in the last twenty years, by the aid of machinery, and the substitution of horse power for hand labor, the effectiveness of human labor on farms has been increased to the extent of about 33 per cent. The special investigations of the Bureau of Labor have led to the conclusion that by the use of machinery the effectiveness of human labor has been nearly, if not quite, doubled since the middle of the century. (See Thirteenth Annual Report of the Commissioner of Labor, page 93.)

VALUE OF LIVE STOCK ON FARMS.

Prior to 1900, census enumerators had merely obtained estimates of the total value of live stock on farms, and, except in 1850, no instructions were given as to what should be included in those estimates. In that year enumerators were directed to include the values of neat cattle, horses, sheep, mules, asses, and swine, and it is probable that in all census years previous to 1900 the estimated values of live stock included only the animals named. In 1900 detailed reports of the values of all classes of animals, and also of poultry and bees on farms, were secured for the first time. All these classes are included under the general designation of live stock, and their values are given under the heads of domestic animals, poultry, bees, and special live stock. Under the first of these designations are included all neat cattle, horses, mules, asses, sheep, swine, and goats, and under the special live stock, all uncommon animals and fowls, such as buffaloes, deer, hares, ostriches, peafowls, etc., kept on farms, either for profit or pleasure.

Table XVI gives, by states and territories, the value of all live stock on farms and ranges, June 1. 1900, and the values of the various classes.

TABLE XVI.—VALUE OF ALL LIVE STOCK AND OF SPECIFIED CLASSES THEREOF, ON FARMS AND RANGES, JUNE 1, 1900, BY STATES AND TERRITORIES.

STATES AND TERRITORIES.	All live stock.	Domestic animals.	Poultry.	Bees.	Special live stock.
The United States	$3,078,050,041	$2,981,722,945	$85,794,996	$10,186,513	$345,587
North Atlantic division	320,461,850	305,360,856	13,706,762	1,370,732	23,500
Maine	17,106,034	16,298,422	756,153	51,459	.....
New Hampshire	10,554,646	10,062,877	467,104	24,665	.....
Vermont	17,841,317	17,373,169	421,195	46,953	.....
Massachusetts	15,798,464	14,730,169	1,018,119	35,751	14,425
Rhode Island	2,593,659	2,281,817	305,047	6,795	.....
Connecticut	10,932,212	10,247,634	644,050	40,528	.....
New York	125,583,715	120,673,101	4,310,755	593,784	6,075
New Jersey	17,612,620	16,269,548	1,300,853	39,219	3,000
Pennsylvania	102,439,183	97,424,119	4,483,486	531,578	.....
South Atlantic division	194,362,808	184,152,273	8,545,899	1,664,636	.....
Delaware	4,111,054	3,733,335	357,475	20,244	.....
Maryland	20,855,877	19,636,844	1,158,020	61,013	.....
Dist. Columbia	125,326	122,019	3,108	199	.....
Virginia	42,026,737	39,831,552	1,886,768	308,417	.....
West Virginia	30,571,259	29,231,832	963,805	375,622	.....
North Carolina	30,106,173	28,242,147	1,434,158	429,868	.....
South Carolina	20,199,859	19,167,229	889,953	142,677	.....
Georgia	35,200,507	33,499,683	1,458,055	242,769	.....
Florida	11,166,016	10,687,632	394,557	83,827	.....
North Central division	1,576,977,350	1,529,975,317	43,416,629	3,505,675	79,729
Ohio	125,954,616	120,466,134	5,085,921	402,561	.....
Indiana	109,550,761	105,048,528	4,222,409	278,864	960
Illinois	193,758,037	186,856,020	6,415,033	486,164	820
Michigan	79,042,644	75,997,051	2,685,829	352,469	7,295
Wisconsin	96,327,649	93,521,430	2,410,714	377,105	18,400
Minnesota	89,063,097	86,620,643	2,274,649	167,280	525
Iowa	278,830,096	271,844,034	6,535,464	443,923	6,675
Missouri	160,540,004	154,295,363	5,720,359	508,217	16,065
North Dakota	42,430,491	41,951,059	477,358	1,474	.....
South Dakota	65,173,432	64,287,578	856,966	10,088	18,800
Nebraska	145,349,587	142,769,629	2,374,930	199,563	5,465
Kansas	190,956,936	186,317,248	4,356,997	277,967	4,724
South Central division	616,459,227	598,255,687	15,672,938	2,513,397	17,205
Kentucky	73,739,106	70,488,187	2,723,221	527,098	600
Tennessee	60,818,605	58,043,895	2,275,864	486,536	12,310
Alabama	36,105,799	34,408,932	1,409,269	287,598	.....
Mississippi	42,657,222	40,843,300	1,665,319	158,603	.....
Louisiana	28,869,506	27,757,301	1,057,889	54,316	.....
Texas	240,576,955	236,227,934	3,595,243	749,483	4,295
Oklahoma	54,829,568	53,921,827	900,743	6,998	.....
Indian Territory	41,378,695	40,824,886	515,384	38,425	.....
Arkansas	37,483,771	35,739,425	1,540,006	204,340	.....
Western division	367,216,468	361,453,453	4,414,365	1,123,647	225,003
Montana	52,161,833	51,724,113	296,806	8,139	132,775
Wyoming	39,145,877	39,080,158	60,397	5,322	.....
Colorado	49,954,311	49,359,781	393,219	195,096	6,215
New Mexico	31,727,400	31,644,179	62,419	20,802	.....
Arizona	15,545,687	15,375,286	80,798	66,603	23,000
Utah	21,474,241	21,175,867	186,922	111,452	.....
Nevada	12,169,565	12,098,608	55,826	20,131	.....
Idaho	21,657,974	21,389,853	203,127	64,994	.....
Washington	22,159,207	21,437,528	614,838	106,841	.....
Oregon	33,917,048	33,172,842	582,524	160,382	1,800
California	67,303,325	65,000,738	1,877,489	363,885	61,213
Alaska	2,196	1,880	166	.....	150
Hawaii	2,570,142	2,523,479	38,237	8,426	.....

Detailed statistics of the value of domestic animals on farms and ranges are given in Table 28, of poultry, in Table 45, and of bees, in Table 46. Under the head of special live stock are included the number and value of animals and fowls not specifically called for by the schedules, and only occasionally reported by the enumerators, many of whom doubtless neglected to report any animals except those common on farms.

Table XVII gives the number and value of all such special live stock included in the last column of table XVI.

TABLE XVII.—NUMBER AND VALUE OF SPECIAL STOCK ON FARMS, JUNE 1, 1900, NOT INCLUDED IN ANY OF THE GENERAL TABLES OF THIS REPORT, BY STATES AND TERRITORIES.

A.—BUFFALOES.[1]

STATES AND TERRITORIES.	Number.	Value.
The United States	494	$189,525
California	27	2,700
Iowa	6	600
Massachusetts	32	6,400
Michigan	9	4,500
Missouri	5	5,000
Montana	275	130,625
New York	5	2,500
South Dakota	61	18,800
Wisconsin	74	18,400

B.—DEER.

The United States	885	$19,638
Illinois	52	770
Indiana	5	190
Iowa	98	2,950
Kansas	46	635
Kentucky	2	100
Massachusetts	23	925
Michigan	58	1,650
Minnesota	11	525
Missouri	273	3,915
Nebraska	106	5,050
New Jersey	145	1,598
New York	42	1,000
Tennessee	19	310
Texas	5	20

C.—ELKS.

The United States	474	$25,047
Colorado	81	5,925
Iowa	21	2,625
Massachusetts	144	7,100
Michigan	11	1,100
Missouri	31	3,850
Montana	29	1,500
New Jersey	135	1,222
Oregon	22	1,725

D.—OSTRICHES.

The United States	684	$51,225
Arizona	460	22,500
California	198	25,000
Texas	36	3,725

E.—BELGIAN HARES.

The United States	17,320	$48,002
Arizona	200	500
California	11,844	33,513
Colorado	360	290
Illinois	100	50
Indiana	790	770
Iowa	50	500
Kansas	945	4,089
Kentucky	1,000	500
Michigan	35	45
Missouri	340	3,300
Montana	600	650
Nebraska	82	415
New Jersey	187	180
New York	575	2,575
Oregon	12	75
Texas	200	550

F.—DOGS.

The United States	123	$12,150
Alaska	3	150
Tennessee	120	12,000

[1] Including cattaloes.

About one-half of the 494 buffaloes reported were "cattaloes," a cross between the domestic cow and the buffalo bull. Both cattaloes and buffaloes are raised on farms as a business. Ostrich raising represents the beginning of an industry which will doubtless become extensive and profitable. The dogs reported in Alaska were used in agriculture, while those in Tennessee belonged to a farm where such animals were raised for sale.

Table XVIII presents, by geographic divisions, a statement of the values of live stock, as published in successive census reports since 1850. For 1900, two series of figures are given, one presenting the value of all live stock and the other, the value of domestic animals only. The table gives for each decade the increase and the per cent of increase in value. Plate 9 gives for the United States a graphic presentation of the facts shown in the first part of the table.

TABLE XVIII.—VALUE OF LIVE STOCK ON FARMS, BY GEOGRAPHIC DIVISIONS, WITH INCREASE AND PER CENT OF INCREASE BY DECADES: SUMMARY 1850 TO 1900.

A.—THE UNITED STATES.

CENSUS YEAR.	Value of live stock.	Increase by decades.	Per cent of increase.
1900[1]	$3,078,050,041	[2]$769,282,468	[2]33.3
1900[3]	2,981,722,945	[2]672,955,372	[2]29.1
1890	2,308,767,573	731,882,866	46.4
1880	1,576,884,707	346,995,097	28.2
1870[4]	1,229,889,610	140,559,695	12.9
1860	1,089,329,915	545,149,399	100.2
1850	544,180,516	.....	.....

B.—NORTH ATLANTIC DIVISION.

CENSUS YEAR.	Value of live stock.	Increase by decades.	Per cent of increase.
1900[1]	320,461,850	6,559,346	2.1
1900[3]	305,360,356	[5]8,541,648	[5]2.7
1890	313,902,504	27,861,855	9.7
1880	286,040,649	[5]44,515,477	[5]13.5
1870[4]	330,556,126	72,197,395	27.9
1860	258,358,731	82,740,196	47.1
1850	175,618,535	.....	.....

C.—SOUTH ATLANTIC DIVISION.

CENSUS YEAR.	Value of live stock.	Increase by decades.	Per cent of increase.
1900[1]	194,362,808	32,731,007	20.2
1900[3]	184,152,273	22,520,472	13.9
1890	161,631,801	31,061,490	23.8
1880	130,570,311	20,190,329	18.3
1870[4]	110,379,982	[5]54,336,626	[5]33.0
1860	164,716,608	59,755,265	56.9
1850	104,961,343	.....	.....

D.—NORTH CENTRAL DIVISION.

CENSUS YEAR.	Value of live stock.	Increase by decades.	Per cent of increase.
1900[1]	1,576,977,350	381,273,088	31.9
1900[3]	1,529,976,317	334,271,055	28.0
1890	1,195,704,262	423,246,362	54.8
1880	772,457,900	238,977,038	44.8
1870[4]	533,480,262	[5]212,903,389	[5]66.4
1860	320,576,873	193,191,486	151.7
1850	127,385,387	.....	.....

E.—SOUTH CENTRAL DIVISION.

CENSUS YEAR.	Value of live stock.	Increase by decades.	Per cent of increase.
1900[1]	616,459,227	224,303,899	57.2
1900[3]	598,255,687	206,100,359	52.6
1890	392,155,328	130,002,576	49.6
1880	262,152,752	63,289,841	31.8
1870[4]	198,862,911	[5]97,989,518	[5]33.0
1860	296,852,429	167,906,032	130.2
1850	128,946,397	.....	.....

[1] Including all live stock.
[2] Including values in Alaska and Hawaii, which were not reported prior to 1900.
[3] Including domestic animals only.
[4] Values in gold.
[5] Decrease.

TABLE XVIII.—VALUE OF LIVE STOCK ON FARMS, BY GEOGRAPHIC DIVISIONS, WITH INCREASE AND PER CENT OF INCREASE, BY DECADES: SUMMARY 1850 TO 1900—Continued.

F.—WESTERN DIVISION.

CENSUS YEAR.	Value of live stock.	Increase by decades.	Per cent of increase.
1900[1]	$367,216,468	$121,842,790	49.7
1900[3]	361,453,453	116,079,775	47.3
1890	245,373,678	119,710,583	95.3
1880	125,663,095	69,052,766	122.0
1870[4]	56,610,329	7,785,055	15.9
1860	48,825,274	41,556,430	571.7
1850	7,268,844	.....	.....

G.—ALASKA AND HAWAII.[4]

CENSUS YEAR.	Value of live stock.	Increase by decades.	Per cent of increase.
1900[1]	2,572,338	.....	.....
1900[3]	2,526,359	.....	.....

[1] Including all live stock.
[2] Including domestic animals only.
[3] Values in gold.
[4] No report prior to 1900.

The total value of the live stock on farms and ranges in the United States, June 1, 1900, was $3,078,050,041, or 15.0 per cent of $20,514,001,838, the reported value of all farm property. Of the live stock value, domestic animals, worth $2,981,722,945, constituted 96.9 per cent; poultry, worth $85,794,996, 2.8 per cent; bees, worth $10,186,513, 0.3 per cent; and special live stock, worth $345,587, barely one-hundredth of 1 per cent.

The North Central states, with the largest number of farms and greatest farm area of any geographic division, naturally reported the greatest value of live stock, $1,576,977,350, or 51.3 per cent of the total value of all live stock in the country. The per cent for the South Central division was 20.0; Western, 11.9; North Atlantic, 10.4; South Atlantic, 6.3; and Alaska and Hawaii, 0.1.

In the North Atlantic states the value of domestic animals in 1900 was less than the estimated value of live stock in 1890. The value of all live stock, including poultry and bees, was slightly less than the estimated value of live stock in 1870. These values have fluctuated with the varying prices of domestic animals, but have not increased for at least thirty years; on the contrary, they have shown a tendency to decrease. In each of the other divisions there has been an almost uninterrupted increase in the reported value of live stock on farms.

Tables XIX and XX give the average values per farm and per acre of live stock for each census year since 1850, by geographic divisions.

TABLE XIX.—AVERAGE VALUE OF LIVE STOCK PER FARM, BY GEOGRAPHIC DIVISIONS: SUMMARY 1850 TO 1900.

GEOGRAPHIC DIVISIONS.	1900[1]	1890	1880	1870[2]	1860	1850
The United States	$536	$506	$393	$462	$533	$376
North Atlantic	473	477	411	549	457	359
South Atlantic	202	216	203	295	546	423
North Central	718	622	455	474	415	291
South Central	372	361	296	389	801	483
Western	1,512	1,682	1,501	1,174	1,409	1,088
Alaska and Hawaii[3]	1,126	.....	.....	.....	.....	.....

[1] Including values of poultry and bees.
[2] Values in gold.
[3] No report prior to 1900.

TABLE XX.—AVERAGE VALUE OF LIVE STOCK PER ACRE OF FARM LAND, BY GEOGRAPHIC DIVISIONS: SUMMARY 1850 TO 1900.

GEOGRAPHIC DIVISIONS.	1900[1]	1890	1880	1870[2]	1860	1850
The United States	$3.66	$3.70	$2.94	$3.02	$2.68	$1.85
North Atlantic	4.90	5.00	4.21	5.27	4.23	3.18
South Atlantic	1.86	1.61	1.29	1.22	1.55	1.12
North Central	4.97	4.66	3.73	3.83	2.97	2.03
South Central	2.35	2.51	1.96	2.00	2.49	1.66
Western	3.92	5.19	4.80	3.49	3.84	1.56
Alaska and Hawaii[3]	0.99	.....	.....	.....	.....	.....

[1] Including values of poultry and bees.
[2] Values in gold.
[3] No report prior to 1900.

The average value of live stock to a farm, for all the states and territories and for the different classes of farms, is given in Tables 11 to 17, inclusive. The average for the United States was $536. In the Western division it was $1,512, or nearly three times that for the United States; in the North Central, $718; in the North Atlantic, $473; in the South Central, $372; and in the South Atlantic, $202. According to this test the importance of live stock in agriculture was greatest in the Western division. When the average value of live stock per acre of farm land is considered, a different result is obtained. For the United States this average was $3.66. The highest average, $4.97, was in the North Central division; in the North Atlantic it was $4.90; in the Western, $3.92; in the South Central, $2.35; in the South Atlantic, $1.86; and in Alaska and Hawaii, $0.99. The average size of farms in the North Atlantic division was 96.5 acres; in the Western, 386.1 acres, or more than four times as great. Although the North Atlantic states reported a greater average value of live stock per acre of farm land, the average per farm was more than three times as great in the Western division. The low average value of live stock per acre of farm land in the South Atlantic division, combined with the small average size of farms—108.4 acres—makes the average value of live stock per farm in that division very low—less than one-seventh of that for the Western division, and less than one-half of that for the North Atlantic.

The average value of live stock per farm in the North Central and Western divisions shows an almost continuous increase from 1850 to 1900, while in the South Atlantic division, there was a steady decrease from 1860 to 1900. In the North Atlantic, the maximum average was reached in 1870, followed by a great decline in 1880, and a sharp rally in the following decade. In the South Central division the results of the war, and the subdivisions of the old plantations, caused a decided decrease in the average per farm in the decades 1860 to 1880, and a most marked increase thereafter, due to the development of the live-stock industry in Texas, Oklahoma, and Indian Territory.

The average value of live stock per acre of farm land has shown a distinct tendency to increase in the North Central and South Atlantic states, while in the North Atlantic the average has fluctuated, with a general tendency since 1870 to decrease. In the South Central and Western states, also, there have been fluctuations, and in the last ten years a decline, due to the inclusion of farms composed of large areas of cheap land leased from the Government. In the preceding decade this land was used without rental and was not included in the census reports.

The value of live stock in 1900 was greatest in Iowa, being $278,830,096; Texas ranked second with $240,576,955; Illinois, third with $193,758,037; Kansas, fourth with $190,956,936; and Missouri, fifth with $160,540,004. The averages per farm in these states were, for Iowa, $1,220; Texas, $683; Illinois, $734; Kansas, $1,103; and Missouri, $564. A number of states and territories in which the public domain is extensively used, reported much higher averages per farm. Attention is called to the following six: Wyoming, $6,423; Nevada, $5,572; Montana, $3,901; Arizona, $2,676; New Mexico, $2,577; and Colorado, $2,022.

RELATIVE VALUES OF LAND AND BUILDINGS, IMPLEMENTS AND MACHINERY, AND LIVE STOCK.

Table XXI gives for each census year, by geographic divisions, the per cent of the value of all farm property in each of the three specified forms thereof—land and buildings, implements and machinery, and live stock.

TABLE XXI.—PER CENT OF THE VALUE OF ALL FARM PROPERTY IN THREE SPECIFIED FORMS THEREOF, BY GEOGRAPHIC DIVISIONS: SUMMARY 1850 TO 1900.

A.—THE UNITED STATES.

CENSUS YEAR.	Land and buildings.	Implements and machinery.	Live stock.
1900	81.3	3.7	15.0
1890	82.6	3.1	14.3
1880	83.7	3.3	13.0
1870	83.2	3.0	13.8
1860	83.3	3.1	13.6
1850	82.5	3.8	13.7

B.—NORTH ATLANTIC DIVISION.

1900	83.9	5.2	10.9
1890	85.5	3.9	10.6
1880	87.7	3.4	8.9
1870	85.7	3.1	11.2
1860	86.5	3.0	10.5
1850	86.4	3.2	10.4

C.—SOUTH ATLANTIC DIVISION.

1900	82.9	3.7	13.4
1890	85.2	2.7	12.1
1880	84.7	2.9	12.4
1870	82.4	2.7	14.9
1860	83.5	2.8	13.7
1850	81.6	3.5	14.9

D.—NORTH CENTRAL DIVISION.

1900	83.1	3.2	13.7
1890	83.0	3.0	14.0
1880	84.0	3.4	12.6
1870	84.0	3.0	13.0
1860	84.4	2.9	12.7
1850	82.2	3.9	13.9

TABLE XXI.—PER CENT OF THE VALUE OF ALL FARM PROPERTY IN THREE SPECIFIFD FORMS THEREOF, BY GEOGRAPHIC DIVISIONS: SUMMARY 1850 TO 1900—Continued.

E.—SOUTH CENTRAL DIVISION.

CENSUS YEAR.	Land and buildings.	Implements and machinery.	Live stock.
1900	73.6	4.5	21.9
1890	76.2	3.1	20.7
1880	76.1	3.6	20.3
1870	74.8	3.3	21.9
1860	78.6	3.7	17.7
1850	74.3	5.7	20.0

F.—WESTERN DIVISION.

1900	75.5	3.1	21.4
1890	79.9	2.2	17.9
1880	73.4	3.0	23.6
1870	72.8	3.3	23.9
1860	57.1	3.4	39.5
1850	53.0	2.7	44.3

G.—ALASKA AND HAWAII.[1]

1900	81.0	15.5	3.5

[1] No report prior to 1900.

For the past fifty years the value of land and buildings has constituted a greater percentage of the value of all farm property in the North Atlantic division than in any other. The per cent of such value has decreased from 87.7 in 1880 to 83.9 in 1900. The high per cent in 1880 was due to a very low per cent of value for live stock. The development of dairying in the West had begun to affect that industry in the North Atlantic states, and the results were shown in the proportionally smaller number and reduced value of dairy cows and other domestic animals. Land values, not so promptly affected by changed conditions, had not at that time been so seriously disturbed.

In the Western division the value of land and buildings has for fifty years constituted a lower per cent of the value of all farm property than in any other division. In 1850 the ratio of the value of land to that of all farm property was only 53.0 per cent, in 1890 it was 79.9 per cent, and in 1900, 75.5 per cent. In that division the value of live stock in 1850 constituted 44.3 per cent of all farm wealth, while in 1890 it was only 17.9 per cent. The opening of farms, and the development of diversified farming and of irrigation, all operated to increase the actual and relative land values and to make the increasing live-stock values of less proportional weight.

The relative percentages of live-stock and land values in the South Central states have changed but little in fifty years, and throughout the period they approximate those found at the present time in the Western states.

In the South Atlantic and North Central states the percentages of land values are intermediate between those of the North Atlantic on the one hand and of the Western and South Central on the other. The same is true for the percentages of live-stock values. In these two divisions live stock is a more important factor in farm economy than in the North Atlantic, and less important than in the remaining two divisions. There have been no especially striking changes during the last half century in the relative importance of live-stock and land values in these divisions.

For all of the divisions except the Western, land values in 1870 constituted a lower per cent and the value of live stock a higher per cent of the total value of farm property, than in the census years preceding and following. These percentages probably reflect the different influences of the Civil War and an inflated currency upon land and live-stock values. The selling price of live stock was modified by the prices of meat in foreign countries, and consequently followed quite closely the changing currency values. Land values expressed in currency did not change so readily, and in 1870 were relatively lower than those of live stock; hence the variation in the three sets of percentages for 1860, 1870, and 1880.

In Hawaii farming implements and machinery constituted a higher per cent of farm wealth than in any other part of the country. This is due to the importance of the sugar industry in those islands and the costly machinery employed therein. This machinery comprises the pumping works for supplying water for irrigation—the most costly of any in the world; the railroads, locomotives, and cars used for transporting cane from the fields to the sugar factories; the steam plows; and the sugar-making apparatus in the sugar houses.

The ratio borne by the aggregate value of these various forms of mechanical devices to the value of the land is greater in Hawaii than in any division, and four times as great as for the United States. The higher per cent of value, in 1900, of this class of farm property in all divisions reflects the more perfect enumeration of wagons, carriages, and implements.

The South Atlantic division uses less machinery than any other division, a fact which is shown by the small per cent for implements in table XXI. The extremely high per cent for the South Central states in 1850 possibly indicates the great relative value of sugar-making machinery in Louisiana, and possibly an overestimate by the enumerators.

BUILDINGS ON FARMS.

VALUE OF BUILDINGS.

The Twelfth Census was the first to collect statistics of buildings on farms.

Table XXII shows, by states and territories, the value of farm land with improvements (except buildings), the value of buildings, the total of these two, and the per cent of that total in buildings.

TABLE XXII.—VALUE OF FARM LAND AND BUILDINGS, JUNE 1, 1900, WITH PERCENTAGES, BY STATES AND TERRITORIES.

STATES AND TERRITORIES.	Total.	Land, with improvements (except buildings).	Buildings.	Per cent in buildings.
The United States.	$16,674,690,247	$13,114,492,056	$3,560,198,191	21.4
North Atlantic division.	2,477,265,688	1,503,388,893	973,876,795	39.3
Maine	96,502,150	49,359,450	47,142,700	48.9
New Hampshire	70,124,360	35,498,760	34,625,600	49.4
Vermont	83,071,620	45,813,905	37,257,715	44.9
Massachusetts	158,019,290	86,925,410	71,093,880	45.0
Rhode Island	23,125,260	13,421,770	9,703,490	42.0
Connecticut	97,425,068	52,441,508	44,983,560	46.2
New York	888,134,180	551,174,220	336,959,960	37.9
New Jersey	162,591,010	93,360,930	69,230,080	42.6
Pennsylvania	898,272,750	575,392,940	322,879,810	35.9
South Atlantic division.	1,206,349,618	899,820,936	306,528,682	25.4
Delaware	34,436,040	23,768,820	10,667,220	31.0
Maryland	175,178,310	120,367,550	54,810,760	31.3
District of Columbia	11,273,990	9,700,230	1,573,760	14.0
Virginia	271,578,200	200,615,080	70,963,120	26.1
West Virginia	168,295,670	134,269,110	34,026,560	20.2
North Carolina	194,655,920	141,955,840	52,700,080	27.1
South Carolina	126,761,530	99,805,860	26,955,670	21.3
Georgia	183,370,120	138,515,430	44,854,690	24.5
Florida	40,799,838	30,823,016	9,976,822	24.5
North Central division.	9,563,880,438	7,865,901,053	1,697,979,385	17.8
Ohio	1,036,615,180	817,163,710	219,451,470	21.2
Indiana	841,735,340	687,633,460	154,101,880	18.3
Illinois	1,765,581,550	1,514,113,970	251,467,580	14.2
Michigan	582,517,710	423,569,950	158,947,760	27.3
Wisconsin	686,147,660	530,542,690	155,604,970	22.7
Minnesota	669,522,315	559,301,900	110,220,415	16.5
Iowa	1,497,554,790	1,256,751,980	240,802,810	16.1
Missouri	843,979,213	695,470,723	148,508,490	17.6
North Dakota	198,780,700	173,352,270	25,428,430	12.8
South Dakota	220,133,190	189,206,890	30,926,300	14.0
Nebraska	577,660,020	486,605,900	91,054,120	15.8
Kansas	643,652,770	532,187,610	111,465,160	17.3
South Central division.	2,072,671,891	1,661,939,013	410,732,878	19.8
Kentucky	382,004,890	291,117,430	90,887,460	23.8
Tennessee	265,150,750	202,013,790	63,136,960	23.8
Alabama	134,618,183	100,165,571	34,452,612	25.6
Mississippi	152,007,000	114,856,660	37,150,340	24.4
Louisiana	141,130,610	107,730,210	33,400,400	23.7
Texas	691,773,613	591,550,802	100,222,811	14.5
Oklahoma	128,941,295	110,209,650	18,731,585	11.1
Indian Territory	46,863,440	39,188,250	7,675,190	16.4
Arkansas	135,182,170	105,106,650	30,075,520	22.2
Western division	1,294,479,856	1,126,958,100	167,521,756	12.9
Montana	62,026,090	52,660,560	9,365,530	15.1
Wyoming	26,965,530	23,434,010	3,531,520	13.1
Colorado	106,344,085	90,341,523	16,002,512	15.0
New Mexico	20,888,814	17,323,709	3,565,105	17.1
Arizona	13,682,960	11,416,460	2,266,500	16.6
Utah	50,778,350	40,126,560	10,651,790	21.0
Nevada	15,615,710	13,275,620	2,340,090	15.0
Idaho	42,318,183	35,486,368	6,831,815	16.1
Washington	115,609,710	99,310,510	16,299,200	14.1
Oregon	132,337,514	113,137,820	19,199,694	14.5
California	707,912,960	630,444,960	77,468,000	10.9
Alaska	12,800	(1)	12,800	100.0
Hawaii	60,029,956	56,484,061	3,545,895	5.9

[1] No titles to land.

The most noteworthy fact disclosed by this table is the high per cent of farm values represented by the value of buildings in the North Atlantic division. The per cent in that division in 1900 was 39.3; in the South Atlantic, 25.4; in the South Central, 19.8; in the North Central, 17.8; in the Western, 12.9; and in Hawaii, 5.9. That the percentages for the South Atlantic and South Central states were greater than that for the North Central division is unquestionably due to the very low value of land in the first-mentioned divisions, as shown in table XXIII.

The per cent of value in buildings was highest in such states as Maine and New Hampshire, where land values have been declining. In those two states the values of buildings on farms were 48.9 and 49.4 per cent, respectively, of the total value of farm lands and buildings.

In the North Central states there are some surprising percentages. For example, Kansas, a newly settled state, reported 17.3 per cent of its farm value in buildings, and Illinois, but 14.2 per cent; Michigan had 27.3 per cent, while Indiana had only 18.3 per cent.

In 1900 the settlers of Alaska had not secured titles to the land, as there was no legal provision for obtaining them, and the only value reported for the farms enumerated was that of buildings and other improvements. Hence the odd percentage shown for that territory.

AVERAGE VALUES OF LAND AND BUILDINGS.

The figures of table XXII should be studied in connection with those of table XXIII, which gives by states and territories the number and per cent of farms with buildings and the average values of land and buildings.

TABLE XXIII.—NUMBER OF FARMS AND NUMBER AND PER CENT OF THOSE WITH BUILDINGS, JUNE 1, 1900, WITH AVERAGE VALUES OF LAND AND BUILDINGS, BY STATES AND TERRITORIES.

STATES AND TERRITORIES.	NUMBER OF FARMS.			AVERAGE VALUE OF—			
				Land.		Buildings.	
	Total.	With buildings.	Per cent with buildings.	Per farm.	Per acre.	Per farm.	Per farm with buildings.
The United States.	5,739,657	5,537,731	96.5	$2,285	$15.59	$620	$643
North Atlantic division	677,506	666,832	98.4	2,219	22.98	1,437	1,460
Maine	59,299	58,136	98.0	832	7.83	795	811
New Hampshire	29,324	28,795	98.2	1,210	9.83	1,181	1,202
Vermont	33,104	32,558	98.4	1,384	9.70	1,125	1,144
Massachusetts	37,715	36,703	97.3	2,305	27.62	1,886	1,937
Rhode Island	5,498	5,401	98.2	2,441	29.46	1,765	1,797
Connecticut	26,948	26,507	98.4	1,946	22.68	1,669	1,697
New York	226,720	223,836	98.7	2,431	24.34	1,486	1,505
New Jersey	34,650	34,027	98.2	2,695	32.86	1,998	2,035
Pennsylvania	224,248	220,869	98.5	2,566	29.70	1,440	1,462
South Atlantic division	962,225	931,320	96.8	935	8.63	319	329
Delaware	9,687	9,545	98.5	2,454	22.29	1,101	1,118
Maryland	46,012	45,364	98.6	2,616	23.28	1,191	1,208
Dist. Columbia	269	267	99.3	36,060	1,142.68	5,850	5,894
Virginia	167,886	164,074	97.7	1,195	10.08	423	433
West Virginia	92,874	90,342	97.3	1,446	12.60	367	377
North Carolina	224,637	217,744	96.9	632	6.24	235	242
South Carolina	155,355	148,864	95.8	642	7.14	174	181
Georgia	224,691	215,855	96.1	616	5.25	199	208
Florida	40,814	39,265	96.2	755	7.06	244	254

TABLE XXIII.—NUMBER OF FARMS AND NUMBER AND PER CENT OF THOSE WITH BUILDINGS, JUNE 1, 1900, WITH AVERAGE VALUES OF LAND AND BUILDINGS, BY STATES AND TERRITORIES—Continued.

STATES AND TERRITORIES.	NUMBER OF FARMS.			AVERAGE VALUE OF—			
				Land.		Buildings.	
	Total.	With buildings.	Per cent with buildings.	Per farm.	Per acre.	Per farm.	Per farm with buildings.
North Central division	2,196,567	2,120,726	96.5	$3,581	$24.79	$773	$801
Ohio	276,719	268,404	97.0	2,953	33.35	793	818
Indiana	221,897	214,721	96.8	3,099	31.81	694	718
Illinois	264,151	255,285	96.6	5,732	46.17	952	985
Michigan	203,261	198,063	97.4	2,084	24.12	782	803
Wisconsin	169,795	166,323	98.0	3,125	26.71	917	936
Minnesota	154,659	149,073	96.4	3,616	21.31	713	739
Iowa	228,622	220,626	96.5	5,497	36.35	1,053	1,091
Missouri	284,886	275,634	96.8	2,441	20.46	521	539
North Dakota	45,332	43,550	96.1	3,824	11.15	561	584
South Dakota	52,622	50,225	95.4	3,596	9.92	588	616
Nebraska	121,525	114,537	94.2	4,004	16.27	750	795
Kansas	173,098	164,285	94.9	3,075	12.77	644	678
South Central division	1,658,166	1,586,829	95.7	1,002	6.45	248	259
Kentucky	234,667	226,498	96.5	1,241	13.24	387	401
Tennessee	224,623	215,550	96.0	899	9.98	281	293
Alabama	223,220	212,551	95.2	449	4.84	154	162
Mississippi	220,803	211,299	95.7	520	6.30	168	176
Louisiana	115,969	110,796	95.5	929	9.74	288	301
Texas	352,190	332,810	94.5	1,680	4.70	285	301
Oklahoma	62,495	60,505	96.8	1,764	7.01	220	227
Indian Territory	45,505	44,857	98.6	861	5.39	169	171
Arkansas	178,694	171,963	96.2	588	6.32	168	175
Western division	242,908	229,904	94.6	4,639	12.01	690	729
Montana	13,370	12,878	96.3	3,939	4.45	700	727
Wyoming	6,095	5,419	88.9	3,845	2.88	579	652
Colorado	24,700	23,532	95.3	3,658	9.54	648	680
New Mexico	12,311	10,144	82.4	1,407	3.38	290	351
Arizona	5,809	4,464	76.8	1,965	5.90	390	508
Utah	19,387	18,224	94.0	2,070	9.75	549	584
Nevada	2,184	2,063	94.5	6,079	5.17	1,071	1,134
Idaho	17,471	16,715	95.7	2,031	11.07	391	409
Washington	33,202	32,222	97.0	2,991	11.68	491	506
Oregon	35,837	34,976	97.6	3,157	11.23	536	549
California	72,542	69,267	95.5	8,690	21.87	1,068	1,118
Alaska	12	9	75.0	(1)	(1)	1,067	1,422
Hawaii	2,273	2,111	92.9	24,850	21.64	1,560	1,680

[1] No titles to land.

The percentage of farms reporting buildings was greater in the North Atlantic states than in any other division. The per cent for that division, June 1, 1900, was 98.4; for the South Atlantic, 96.8; North Central, 96.5; South Central, 95.7; Western, 94.6; and Hawaii, 92.9. The low per cent for Arizona was due to the lack of reports concerning buildings on many Indian farms, and to the fact that in this territory as in several other Western states, the enumerators did not report buildings having no appreciable value, such as sod houses or similar dwellings occupied by settlers while developing their farms.

An examination of the averages given in table XXIII furnishes an explanation of the noteworthy percentages in some of the North Central states, to which attention has just been called. In Illinois the land has an exceptionally high reported value per farm and per acre, while the buildings are equal in value to those in the most prosperous of the other states. This higher value of land, however, gives a lower per cent for buildings than in states like Kansas, Tennessee, and Alabama, where the land is worth only one-third, one-fourth, and one-eighth as much, respectively, as in Illinois.

The states and territories reporting the highest average values of buildings per farm were the District of Columbia, $5,894; New Jersey, $2,035; Massachusetts, $1,937; Rhode Island, $1,797; Connecticut, $1,697; Hawaii, $1,680; New York, $1,505; and Pennsylvania, $1,462. Those with the lowest average values were Alabama, $162; Indian Territory, $171; Arkansas, $175; Mississippi, $176; South Carolina, $181; Georgia, $208; and Oklahoma, $227. The high average value of buildings for the District of Columbia is accounted for by the fact that the farms reported include a large number of extensively improved florists' establishments, of which a number are operated by the Government.

CHANGES IN THE CENTER OF AGRICULTURE IN THE UNITED STATES.

WESTWARD MOVEMENT OF AGRICULTURE.

Tables XXIV to XXX inclusive, show for each census year since 1850 the per cent which the number of farms in each geographic division forms of the total number; likewise the per cent for acreage of farm land, and acreage of improved farm land, and for the value of the various classes of farm property, reported by each geographic division.

TABLE XXIV.—PER CENT OF THE TOTAL NUMBER OF FARMS IN EACH OF THE GEOGRAPHIC DIVISIONS: SUMMARY 1850 TO 1900.

GEOGRAPHIC DIVISIONS.	1900	1890	1880	1870	1860	1850
The United States	100.0	100.0	100.0	100.0	100.0	100.0
North Atlantic	11.8	14.4	17.4	22.6	27.6	33.8
South Atlantic	16.8	16.4	16.1	14.1	14.8	17.1
North Central	38.3	42.2	42.3	42.3	37.8	30.2
South Central	28.9	23.8	22.1	19.2	18.1	18.4
Western	4.2	3.2	2.1	1.8	1.7	0.5
Alaska and Hawaii [1]	(2)	.....	.....	.....	.....	.....

[1] No report prior to 1900. [2] Less than one-tenth of 1 per cent.

The South Central since 1860, and Western since 1850, are the only divisions in which the number of farms increased at a more rapid rate in each decade than the total number of farms in the United States, and the North Atlantic is the only one in which the reverse condition prevailed in each decade. From 1850 to 1870 the number of farms in the North Central states increased faster than in the country as a whole. From 1870 to 1890 the rate of increase was practically the same, but in the last decade, owing to the unprecedented gain in the South Central division, notably in Texas, Oklahoma, and Indian Territory, it was less than that for the United States, hence the decrease indicated in the above table. The South Atlantic division contained practically the same per cent of the total number of farms of the country in 1900 as in 1850.

The great increases since 1850 in the North Central, Western, and South Central divisions draw attention to the fact that the center of agriculture, so far as it can be measured by the number of farms, has for the last

half century been moving steadily to the West and South—westward from 1850 until the close of the Civil War, and since then to the South and West.

In tables XXV and XXVI, more exactly than in table XXIV, is shown the actual movement of the center of agriculture in the last half century. These show for the successive decades the per cent of the total area of farm land and of improved farm land in each of the geographic divisions.

TABLE XXV.—PER CENT OF THE ACREAGE OF FARM LAND IN EACH OF THE GEOGRAPHIC DIVISIONS: SUMMARY 1850 TO 1900.

GEOGRAPHIC DIVISIONS.	1900	1890	1880	1870	1860	1850
The United States	100.0	100.0	100.0	100.0	100.0	100.0
North Atlantic	7.8	10.0	12.7	15.4	15.0	18.8
South Atlantic	12.4	16.1	18.9	22.1	26.2	31.8
North Central	37.7	41.2	38.6	34.1	26.5	21.4
South Central	30.6	25.1	24.9	24.4	29.2	26.4
Western	11.2	7.6	4.9	4.0	3.1	1.6
Alaska and Hawaii[1]	0.3	.....	.....	.....	.....	.....

[1] No report prior to 1900.

TABLE XXVI.—PER CENT OF THE TOTAL ACREAGE OF IMPROVED FARM LAND IN EACH OF THE GEOGRAPHIC DIVISIONS: SUMMARY 1850 TO 1900.

GEOGRAPHIC DIVISIONS.	1900	1890	1880	1870	1860	1850
The United States	100.0	100.0	100.0	100.0	100.0	100.0
North Atlantic	9.4	11.9	16.3	21.8	23.9	30.0
South Atlantic	11.1	11.7	12.7	16.0	21.4	26.6
North Central	53.6	51.5	48.0	41.5	32.1	23.6
South Central	19.3	18.5	17.5	16.4	20.4	19.5
Western	6.5	6.4	5.5	4.3	2.2	0.3
Alaska and Hawaii[1]	0.1	.....	.....	.....	.....	.....

[1] No report prior to 1900.

The changes here shown for the North Atlantic division are of the same general character as those treated at length in the discussion of the preceding table. The increases in total and improved acreage since 1850 have been so slight that their percentages to such areas for the country as a whole, form decreasing series. In 1850 the per cent of the total acreage reported by this division was 18.8, and that of the farm land improved, 30.0, while in 1900 it was 7.8 and 9.4, respectively. In 1850 the North Central states contained 21.4 per cent of all land in farms and 23.6 per cent of the farm land improved; in 1900 they had 37.7 per cent of the former and 53.6 per cent of the latter. In this division the per cent of farm land improved increased steadily from 1850 to 1900, and that of all farm land until 1890.

The South Atlantic states show decreases almost as marked as those shown for the North Atlantic states. In 1850 this division contained 31.8 per cent of all farm land and 26.6 per cent of all farm land improved, while in 1900 it reported but 12.4 and 11.1 per cent, respectively.

The Western division showed a very marked increase in its relative area of farm land, and also in that of farm land improved, the former increasing from 1.6 to 11.2 per cent, and the latter from 0.3 to 6.5 per cent.

The South Central division suffered severely from the Civil War, and the gain since 1870 barely sufficed to give it the same relative position in 1900 as it had fifty years before. In 1850 it reported 19.5 per cent and in 1900, 19.3 per cent of the farm land improved, but the per cent of the total area of farm land increased from 26.4 in 1850 to 30.6 in 1900.

The per cent of the total value of farm property contained in each geographic division of the country is shown in table XXVII for each census year since 1850. Table XXVIII gives corresponding data for the value of farm land with improvements, table XXIX, for that of implements and machinery, and table XXX, for that of live stock.

TABLE XXVII.—PER CENT OF THE TOTAL VALUE OF FARM PROPERTY IN EACH OF THE GEOGRAPHIC DIVISIONS: SUMMARY 1850 TO 1900.

GEOGRAPHIC DIVISIONS.	1900	1890	1880	1870	1860	1850
The United States	100.0	100.0	100.0	100.0	100.0	100.0
North Atlantic	14.4	18.5	26.2	33.0	30.8	42.5
South Atlantic	7.1	8.3	8.6	8.3	15.1	17.8
North Central	56.1	53.0	50.2	45.9	31.6	23.0
South Central	13.7	11.7	10.6	10.1	21.0	16.3
Western	8.3	8.5	4.4	2.7	1.5	0.4
Alaska and Hawaii[1]	0.4	.....	.....	.....	.....	.....

[1] No report prior to 1900.

TABLE XXVIII.—PER CENT OF THE TOTAL VALUE OF FARM LAND AND BUILDINGS IN EACH OF THE GEOGRAPHIC DIVISIONS: SUMMARY 1850 TO 1900.

GEOGRAPHIC DIVISIONS.	1900	1890	1880	1870	1860	1850
The United States	100.0	100.0	100.0	100.0	100.0	100.0
North Atlantic	14.9	19.1	27.5	33.9	31.9	44.5
South Atlantic	7.2	8.6	8.8	8.2	15.2	17.6
North Central	57.3	53.2	50.3	46.4	32.0	23.0
South Central	12.4	10.8	9.6	9.1	19.8	14.6
Western	7.8	8.3	3.8	2.4	1.1	0.3
Alaska and Hawaii[1]	0.4	.....	.....	.....	.....	.....

[1] No report prior to 1900.

TABLE XXIX.—PER CENT OF THE TOTAL VALUE OF FARM IMPLEMENTS AND MACHINERY IN EACH OF THE GEOGRAPHIC DIVISIONS: SUMMARY 1850 TO 1900.

GEOGRAPHIC DIVISIONS.	1900	1890	1880	1870	1860	1850
The United States	100.0	100.0	100.0	100.0	100.0	100.0
North Atlantic	20.1	23.7	26.3	33.1	30.0	35.7
South Atlantic	7.0	7.4	7.6	7.4	13.8	16.3
North Central	47.8	51.0	50.7	45.6	29.6	23.5
South Central	16.6	11.8	11.5	11.0	24.9	24.2
Western	7.0	6.1	3.9	2.9	1.7	0.3
Alaska and Hawaii[1]	1.5	.....	.....	.....	.....	.....

[1] No report prior to 1900.

TABLE XXX.—PER CENT OF THE TOTAL VALUE OF LIVE STOCK ON FARMS IN EACH OF THE GEOGRAPHIC DIVISIONS: SUMMARY 1850 TO 1900.

GEOGRAPHIC DIVISIONS.	1900	1890	1880	1870	1860	1850
The United States	100.0	100.0	100.0	100.0	100.0	100.0
North Atlantic	10.4	13.6	18.1	26.9	23.7	32.3
South Atlantic	6.3	7.0	8.3	9.0	15.1	19.3
North Central	51.3	51.8	49.0	43.4	29.4	23.4
South Central	20.0	17.0	16.6	16.1	27.3	23.7
Western	11.9	10.6	8.0	4.6	4.5	1.3
Alaska and Hawaii[1]	0.1	.....	.....	.....	.....	.....

[1] No report prior to 1900.

For the North Atlantic division the four tables show movements of the same general character, the only break in an uninterrupted series of decreasing percentages from 1850 to 1900 being in 1870, when the percentages were higher than in 1860. This was due to the great decrease of farm values in the South, the losses there being sufficient to offset the decreasing importance of the North Atlantic states in the agriculture of the country. The extent of the changes between 1850 and 1900 in the relative farm wealth of the North Atlantic division is indicated in table XXVII. In 1850 that division contained 42.5 per cent of the value of all farm property, while in 1900 it contained but 14.4 per cent.

The Western and North Central divisions showed general increases in farm values in excess of those for the other divisions of the country. The per cent of the total value of farm property contained in the North Central states increased from 23.0 in 1850 to 56.1 in 1900. From 1890 to 1900 the per cent of total land value increased, while that of live stock and that of implements showed a slight decline. The per cent of the values of all farm property in the Western division increased from 0.4 in 1850 to 8.3 in 1900; that of the value of implements and machinery increased steadily after 1850, but that of land values showed a slight decrease from 1890 to 1900. Attention has already been called to the exceptional movement of land values preceding this change.

The farm property of the South Central division constituted 21.0 per cent of the total in 1860; but, for the reasons heretofore stated, fell to 10.1 per cent in 1870. The corresponding percentages in the South Atlantic division were 15.1 in 1860 and 8.3 in 1870. Since 1870 the South Central division has made continued progress, its farm values increasing relatively faster than for the United States. The movements of relative values in the South Atlantic division, on the other hand, show no regularity since 1870. In that year it contained 8.3 per cent of the value of all farm property in the country; in 1880, 8.6 per cent; in 1890, 8.3 per cent; and in 1900, only 7.1 per cent.

The variations of the values of farm land, of implements and machinery, and of live stock, as indicated by the percentages of tables XXVIII, XXIX, and XXX, respectively, are substantially the same for the South Atlantic and South Central states as those shown in table XXVII for all farm property.

METHODS OF DETERMINING CENTERS AND MEDIAN POINTS.

The center of area of any country or any subdivision thereof is the point which coincides with its center of gravity, each unit of area having the same weight. The median point of that area is the point of intersection of the line dividing it equally east and west with the line dividing it equally north and south. In the case of an area which is symmetrically disposed with respect to these dividing lines, such as one forming a regular geometric figure, the median point coincides with the center of area. In countries having very irregular boundaries, however, there often exists a considerable difference between the location of the two points, the extent of the difference depending upon the position of the outlying parts of the territory with reference to the lines whose intersection determines the median point. Subject to the same general conditions the median point of the number of farms, of the number of acres of farm land, or of any other agricultural statistical unit may practically coincide with, or may show considerable variation from the center of the same unit.

In calculating the center and median point of the number of farms in the United States at any time, it is assumed that each farm has the same weight. In order that the results for 1900 might be comparable with those obtained for preceding census years, the farms of Alaska and Hawaii were omitted in making the calculations. The method used in finding the center is, in brief, as follows:

The number of farms in a given census year was first distributed by "square degrees," as the areas included between consecutive meridians and parallels have been designated. The number of farms in each square degree was assumed to be located at its center, except in cases where this assumption was manifestly untrue, as, for instance, where a part of a square degree was occupied by a large body of water, a desert, or a mountain range. In these cases the location of the number of farms for the square degree was estimated as nearly as possible. The number of farms in each square degree was then multiplied by the meridian distance from the center thus found to an assumed parallel of latitude chosen for convenience near the latitude of the center to be determined (in this calculation 40° north), and the sums of the products or moments north and south of that parallel were obtained. Their difference divided by the total number of farms in the country gave, as a distance from the assumed parallel, the latitude of the center of farms. In a similar manner the east and west moments were obtained by the use of an assumed meridian (90° west of Greenwich in this computation) and from them the longitude of the center was calculated.

On Plate 1 is given a map showing in detail the changes in the centers of agriculture and manufacture from 1850 to 1900, and in the case of population, from 1790 to 1900.

On Plate 2 is given a map of the United States showing the division of the states into five geographic divisions: The North Atlantic, South Atlantic, North Central, South Central, and Western. This map gives also the location, in 1900, of the center of the number of farms, of the acres of farm land, of the acres of farm land improved, of the total value of farm property, of the production of corn, wheat, oats, rye, barley, buckwheat, and cotton, together with the center of land area, of population, and of manufactures.

POSITION OF CENTERS AND MEDIAN POINTS.

It is believed that the following tables are more descriptive of the facts which they depict than any narration that can be put in type concerning them.

TABLE XXXI.—POSITION OF THE CENTER OF POPULATION, OF THE NUMBER OF FARMS, ACRES OF FARM LAND, VALUE OF FARM PROPERTY, INVESTMENTS IN MANUFACTURES, AND THE PRODUCTION OF CORN, WHEAT, AND OATS: 1850 TO 1900.

A.—POPULATION.

CENSUS YEAR.	North latitude.			West longitude.			Approximate location by important towns.
	°	′	″	°	′	″	
1900	39	9	6	85	48	9	6 miles southeast of Columbus, Ind.
1890	39	11	9	85	32	9	20 miles east of Columbus, Ind.
1880	39	4	1	84	39	7	8 miles west by south of Cincinnati, Ohio.
1870	39	12	00	83	35	7	48 miles east by north of Cincinnati, Ohio.
1860	39	00	4	82	48	8	20 miles south of Chillicothe, Ohio.
1850	38	59	00	81	19	00	23 miles southeast of Parkersburg in the present state of West Virginia.

B.—NUMBER OF FARMS.

1900	38	17	00	88	12	30	110 miles east by south of St. Louis, Mo., in Wayne county, Ill.
1890	38	38	21	86	14	46	82 miles south by west of Indianapolis, in Washington county, Ind.
1880	38	48	30	84	24	30	21 miles south by east of Cincinnati, Ohio, in Kenton county, Ky.
1870	39	11	48	83	56	44	31 miles east-northeast of Cincinnati, in Brown county, Ohio.
1860	39	29	38	83	52	36	42 miles northeast of Cincinnati, in Clinton county, Ohio.
1850	39	14	54	81	43	38	10 miles south of west of Parkersburg, W. Va., in Athens county, Ohio.

C.—ACRES OF FARM LAND.

1900	38	11	36	92	50	19	48 miles southwest of Jefferson City, in Camden county, Mo.
1890	38	58	22	90	11	44	25 miles north by east of St. Louis, Mo., in Madison county, Ill.
1880	38	8	28	88	2	43	125 miles east-southeast of St. Louis, Mo., in White county, Ill.
1870	38	5	19	86	34	17	50 miles east by north of Evansville, in Perry county, Ind.
1860	37	41	1	85	54	30	40 miles south by west of Louisville, in Hardin county, Ky.
1850	37	26	20	83	36	22	125 miles southeast by south of Cincinnati, Ohio, in Breathitt county, Ky.

TABLE XXXI.—POSITION OF THE CENTER OF POPULATION, OF THE NUMBER OF FARMS, ACRES OF FARM LAND, VALUE OF FARM PROPERTY, INVESTMENTS IN MANUFACTURES, AND THE PRODUCTION OF CORN, WHEAT, AND OATS: 1850 to 1900—Continued.

D.—VALUE OF FARM PROPERTY.

CENSUS YEAR.	North latitude.			West longitude.			Approximate location by important towns.
	°	′	″	°	′	″	
1900	39	57	48	90	21	35	39 miles west-northwest of Springfield, in Cass county, Ill.
1890	39	58	4	89	2	15	34 miles east-northeast of Springfield, in Macon, county, Ill.
1880	40	8	26	85	44	46	33 miles northeast of Indianapolis, in Madison county, Ind.
1870	40	15	2	83	51	8	44 miles west-northwest of Columbus, Ohio.
1860	38	55	39	83	13	39	66 miles south of east of Cincinnati, in Pike county, Ohio.
1850	39	25	53	80	28	33	61 miles south of east of Parkersburg, in Harrison County, W. Va.

E.—INVESTMENTS IN MANUFACTURES.

1900	40	36	36	82	18	7	59 miles south-southwest of Cleveland, Ohio.
1890	40	42	22	81	32	37	51 miles south by east of Cleveland, Ohio.
1880	40	50	9	79	53	00	30 miles north of Pittsburg, Pa.
1870	40	47	13	79	25	85	43 miles northeast of Pittsburg, Pa.
1860	40	33	1	79	18	50	35 miles due east of Pittsburg, Pa.
1850	40	41	42	77	25	9	65 miles northwest of Harrisburg, Pa.

F.—PRODUCTION OF CORN.

1900	39	19	33	90	27	6	54 miles southwest of Springfield, Ill.
1890	39	16	57	90	26	49	55 miles southwest of Springfield, Ill.
1880	39	28	12	89	7	43	36 miles southeast of Springfield, Ill.
1870	38	47	13	87	14	15	90 miles southwest of Indianapolis, Ind.
1860	38	1	54	86	29	4	47 miles west-southwest of New Albany, Ind.
1850	39	14	54	81	43	38	86 miles east-southeast of Columbus, Ohio.

G.—PRODUCTION OF WHEAT.

1900	41	39	19	94	59	23	70 miles west of Des Moines, Iowa.
1890	39	33	53	93	9	18	138 miles south by east of Des Moines, Iowa. (In Missouri.)
1880	40	36	14	90	30	46	69 miles northwest of Springfield, Ill.
1870	40	39	17	88	48	40	82 miles northeast of Springfield, Ill.
1860	39	59	59	86	1	38	18 miles north by east of Indianapolis, Ind.
1850	40	14	18	81	58	49	57 miles east-northeast of Columbus, Ohio.

H.—PRODUCTION OF OATS.

1900	41	39	15	91	8	11	58 miles north of Burlington, Iowa.
1890	41	10	43	89	46	52	39 miles north-northeast of Peoria, Ill.
1880	41	2	43	87	13	37	62 miles south-southeast of Chicago, Ill. (In Indiana.)
1870	40	59	13	85	42	46	30 miles west by south of Fort Wayne, Ind.
1860	41	00	38	81	2	5	48 miles southeast of Cleveland, Ohio.
1850	39	43	22	81	35	29	80 miles east by south of Columbus, Ohio.

TABLE XXXII.—POSITION OF THE MEDIAN POINT OF THE NUMBER OF FARMS, ACRES OF FARM LAND, AND THE PRODUCTION OF CEREALS, CORN, WHEAT, OATS, AND COTTON: 1850 TO 1900.

A.—NUMBER OF FARMS.

CENSUS YEAR.	North latitude.			West longitude.			Approximate location by important towns.
	°	′	″	°	′	″	
1900	38	31	48	87	35	31	39 miles north of Evansville, in Knox county, Ind.
1890	39	12	4	86	46	30	53 miles southwest of Indianapolis, in Owen county, Ind.
1880	39	24	41	85	56	42	27 miles southeast of Indianapolis, in Johnson county, Ind.
1870	39	52	29	85	5	36	57 miles east by north of Indianapolis, in Wayne county, Ind.
1860	40	7	11	83	47	45	42 miles west by north of Columbus, in Champaign county, Ohio.
1850	39	53	59	82	4	39	52 miles east by south of Columbus, in Muskingum county, Ohio.

TABLE XXXII.—POSITION OF THE MEDIAN POINT OF THE NUMBER OF FARMS, ACRES OF FARM LAND, AND THE PRODUCTION OF CEREALS, CORN, WHEAT, OATS, AND COTTON: 1850 TO 1900—Continued.

B.—ACRES OF ALL FARM LAND.

CENSUS YEAR.	North latitude.			West longitude.			Approximate location by important towns.
	°	′	″	°	′	″	
1900	38	28	19.2	92	57	25	45 miles west by south of Jefferson City, in Morgan county, Mo.
1890	38	51	48	89	18	42	67 miles southeast by south of Springfield, in Fayette county, Ill.
1880	38	41	59	87	11	24	54 miles north-northeast of Evansville, in Daviess county, Ind.
1870	38	32	48	85	25	11	36 miles northeast of Louisville, in Henry county, Ky.
1860	37	36	22	84	50	35	68 miles southeast of Louisville, in Boyle county, Ky.
1850	37	34	21	83	6	32	150 miles east-southeast of Louisville, in Breathitt county, Ky.

C.—ACRES OF IMPROVED FARM LAND.

1900	39	49	48.36	90	33	58.6	48 miles west of Springfield, in Morgan county, Ill.
1890	39	47	20	89	27	27	9 miles east of Springfield, in Sangamon county, Ill.
1880	39	49	1	87	26	42	69 miles west of Indianapolis, in Vermilion county, Ind.
1870	39	50	40	84	59	29	62 miles east of Indianapolis, in Wayne county, Ind.
1860	39	22	58	83	41	17	47 miles east-northeast of Cincinnati, in Clinton county, Ohio.
1850	39	15	53	81	24	58	7 miles east by south of Parkersburg, in Wood county, W. Va.

D.—PRODUCTION OF CEREALS.

1900	40	36	52	91	37	44	16 miles northwest of Keokuk, in Lee county, Iowa.
1890	40	26	6	91	12	58	33 miles north-northeast of Quincy, in Hancock county, Ill.
1880	40	17	36	89	18	50	63 miles north-northeast of Springfield, in Logan county, Ill.
1870	40	4	16	87	23	50	75 miles west by north of Indianapolis, in Fountain county, Ind.
1860	39	28	55	85	39	44	46 miles southeast of Indianapolis, in Rush county, Ind.
1850	39	6	17	84	14	48	20 miles east of Cincinnati, in Clermont county, Ohio.

E.—PRODUCTION OF CORN.

1900	40	2	28	91	00	00	23 miles east-northeast of Quincy, Ill.
1890	39	54	36	91	41	45	15 miles west by south of Quincy, Ill. (In Missouri.)
1880	40	00	17	89	38	15	15 miles north of Springfield, Ill.
1870	39	25	50	87	49	9	15 miles west by south of Terre Haute, Ind. (In Illinois.)
1860	38	56	1	86	34	23	66 miles south-southwest of Indianapolis, Ind.
1850	38	17	17	85	13	27	27 miles east of Louisville, Ky.

F.—PRODUCTION OF WHEAT.

1900	41	10	51	95	36	36	106 miles west by north of Des Moines, Iowa.
1890	40	18	15	91	43	9	128 miles north by east of Jefferson City, Mo.
1880	40	20	15	88	41	11	53 miles northeast by east of Springfield, Ill.
1870	40	36	56	87	58	36	105 miles northeast by east of Springfield, Ill.
1860	40	3	19	85	32	15	40 miles east-northeast of Indianapolis, Ind.
1850	40	23	59	81	2	22	7 miles north of Cadiz, Ohio.

G.—PRODUCTION OF OATS.

1900	42	7	6	89	42	42	61 miles northeast by east of Rock Island, Ill.
1890	41	24	30	90	19	21	26 miles south-southeast of Rock Island, Ill.
1880	41	25	28	88	24	26	51 miles southwest by west of Chicago, Ill.
1870	41	6	20	85	1	38	6 miles east of Fort Wayne, Ind.
1860	41	12	1	79	44	33	52 miles north by east of Pittsburg, Pa.
1850	40	23	39	80	1	40	28 miles west by south of Pittsburg, Pa.

TABLE XXXII.—POSITION OF THE MEDIAN POINT OF THE NUMBER OF FARMS, ACRES OF FARM LAND, AND THE PRODUCTION OF CEREALS, CORN, WHEAT, OATS, AND COTTON: 1850 TO 1900—Continued.

H.—PRODUCTION OF COTTON.

CENSUS YEAR.	North latitude.			West longitude.			Approximate location by important towns.
	°	′	″	°	′	″	
1900	32	57	40	90	18	12	34 miles north by west of Jackson, Miss.
1890	33	00	14	89	36	55	57 miles northeast by north of Jackson, Miss.
1880	33	21	2	89	7	1	92 miles northeast of Jackson, Miss.
1870	32	54	21	89	4	53	74 miles northeast by east of Jackson, Miss.
1860	32	47	34	88	56	9	78 miles east-northeast of Jackson, Miss.
1850	33	9	35	87	1	24	28 miles southwest of Birmingham, Ala.

All the various social and industrial changes of the last half century chronicled in the foregoing tables have some features in common. The center of the number of farms, that of the value of farm property, and that of the value of the products of manufactures have all moved westward for a century. The movement of the center of population has been almost due west, inclining a very little to the north; so also has the movement of the center of value of manufactured products. In agriculture the movements are different. The center of the number of farms moved west from 1850 to 1860, and thereafter moved continuously to the southwest, forming an arc instead of a straight line. The southward movement is due largely to the subdivision of the old plantations of the South into small holdings, a change which has been going on continuously since 1860.

The center of the number of acres of farm land moved north from 1850 to 1890 and then showed a southward tendency, reflecting the addition of great areas of farm land in Texas, Indian Territory, and Oklahoma.

The center of the value of farm property moved southward before the war, then moved northward, reflecting the destructive results of that conflict upon Southern farm values. It later resumed a southward trend, though only to a limited extent. The westward movement of the center of production of corn has fluctuated somewhat from decade to decade between north and south, but, on the whole, has shown a tendency to move due westward with population. The movement in wheat has shown similar inclination, but that in oats has exhibited a marked tendency toward the north along with its westward course.

The center of the number of farms has moved farther westward than the center of population, so also has every other agricultural center, as well as the center of manufactures. The greatest westward movement has been that of wheat—13° 00′ 34″, or more than twice that of population or of manufactures and nearly twice that of the number of farms.

The position of the center of gross farm income was calculated for the year 1899 only, as the reports of the

value of farm products for the preceding census years were so unreliable as to make calculations of centers for those years of little practical value. The center of the value of farm products is computed upon the values of the products not fed to live stock, thus giving an exhibit of the center of gross farm income. This center was located at 39° 18′ 47″ north latitude, and 90° 33′ 10″ west longitude, in Greene county, Ill., about 50 miles north-northwest of St. Louis. This is farther north than the center of the number of farms or of the acres of farm land, but a little south of the center of the area of improved farm land, and of that of the production of corn, wheat, and oats. The value of the cotton produced in the Southern states brings the center of gross farm income south of that of the combined cereals, which is located west of the center of the number of farms, but east of that of the acres of farm land.

The position of the center of improved acreage was calculated for the year 1900 only. This center was located at 39° 26′ 20″ north latitude, and 90° 39′ 20″ west longitude, in Greene county, Ill., 60 miles north-northwest of St. Louis. This is a little to the south and to the west of the median point, as shown in table XXXII.

The latitude of the center of cotton production, also, was calculated for the year 1900 only, and was found to be 32° 55′ 14″ north, or only a little more than 2′ distant from the median point, as shown in table XXXII. Its longitude was 89° 49′ 25″ west, which differs about 29′ from that of the median point. The approximate location of this center was in Holmes county, 45 miles north-northeast from Jackson, Mississippi.

The movements of the median point, given in table XXXII, exhibit in a general way the same characteristics as those of the centers shown in table XXXI. The variations are of more interest to the mathematician than to the student of economics, and will receive no further consideration in this discussion.

CLASSIFICATION OF FARMS.

CLASSIFICATION BY AREA.

The census of 1860 was the first to adopt any classification of farms other than by geographic location. That census divided farms into seven groups by area of improved farm land. The same classification was used in 1870, but the census of 1880 and that of 1890 employed a classification of farms by area of all farm land, which was used, with slight modification, in 1900. As adopted in 1880 it provided for eight classes with areas in acres as follows: Under 3, 3 and under 10, 10 and under 20, 20 and under 50, 50 and under 100, 100 and under 500, 500 and under 1,000, and 1,000 and over. In 1890 the first and second classes were consolidated and reported under the one head, "under 10 acres."

The popular objection to the classification used in 1880 and 1890 was that the class containing 100 and less than 500 acres was too large. To meet this objection the census of 1900 divided farms containing from 100 to 500 acres into three classes. The first of these contains farms of 100 and less than 175 acres, and was designed to include all farms in the West that are popularly said to contain a quarter section of land. A quarter section in most cases contains 160 acres, but along the boundary of some townships it often includes several acres more. The second subgroup contains from 175 to 260 acres, and the third from 260 to 500 acres. The group with 175 to 260 acres contains all farms comprising five or six 40-acre tracts, or "quarter-quarters," as they are designated in the land descriptions of the more recently settled portions of the West and South. The group with 260 to 500 acres contains all farms of a half section, of which there are considerable numbers in the Western states and territories. The census of 1900 classified farms containing less than 3 acres as a separate group, as was done in 1880. The classification adopted by the census of 1860 and that of 1870 being by improved farm land, and that of 1880 1890, and 1900 by total farm area, no trustworthy comparison can be made between the figures of 1900 and those of census years prior to 1880.

CLASSIFICATION BY PRINCIPAL SOURCE OF INCOME.

In addition to the grouping of farms by area and by tenure, the census of 1900 also groups them according to the principal source of income, as follows: Hay and grain, vegetables, fruits, live stock, dairy produce, tobacco, cotton, rice, sugar, flowers and plants, nursery products, taro, coffee, and miscellaneous. The basis for this classification is the value of the specified crops or products of 1899. If the value of the hay and grain raised on any farm exceeded that of any other crop and constituted at least 40 per cent of the value of the products not fed to live stock, the farm was designated a "hay and grain" farm. If vegetables were the leading crop, constituting 40 per cent of the value of all products, the farm was designated a "vegetable" farm. The farms of the other groups were classified in accordance with the same general principle. "Miscellaneous" farms were those whose operators did not derive their principal income from any one class of farm products. Those with no income in 1899 were classified according to the agricultural operations upon other farms in the same locality.

CLASSICATION BY REPORTED VALUE OF PRODUCTS OF 1899 NOT FED TO LIVE STOCK.

Farms of all areas, tenures, and sources of income are grouped according to the amount of the

gross farm income in 1899. By gross farm income is meant the value of the products of 1899 not fed to live stock. In this grouping, farms were separated into eight classes, as follows: Farms with no income, farms having incomes of $1 and less than $50, $50 and less than $100, $100 and less than $250, $250 and less than $500, $500 and less than $1,000, $1,000 and less than $2,500, and $2,500 and over.

CLASSIFICATION BY TENURE.

The act of Congress authorizing the census of 1880 was the first to direct the collection of statistics of farm tenure. That census was the first, therefore, to present the statistics of farms classified by tenure. The questions relating to tenure on the schedules of 1880 and 1890 required the enumerators to report the tenure of each farm, stating whether it was operated by the owner or by one who rented, either for a fixed money rental or for a share of the products. Accordingly, farms were grouped in the reports for 1880 and 1890 as those of owners, cash tenants, and share tenants. The schedules calling for these reports concerning tenure were not accompanied, either in 1880 or in 1890, by any instructions to the enumerators; neither did the schedules contain any detailed statements of what farms were to be included under each head. The terms "rented for a fixed money rental" and "rented for a share of the products" have quite definite popular significance, and it is probable that most if not all farms which could not strictly be classified as cash-tenant or share-tenant farms under the foregoing general description, were reported as farms of owners.

On the schedules of 1900 provision was made for separately classifying farms which could not be classed either as operated by owners, or as rented for cash or for a share of the products, but which, for the reasons above stated, were probably all returned in 1880 and 1890 as farms of owners. The first of the new classes is that designated in this report as "part owners." It consists of the farms of those who owned a part and rented a part of the land tilled by them. Many of the farms of this class were unquestionably reported in 1880 and 1890 as two farms, one owned and the other rented.

A second and smaller class of farms is here designated as that of "owners and tenants." It comprises those which were operated under the joint direction and by the united labor of two or more individuals, one owning the farm, or a part of it, and the other, or others, owning no part, but receiving for supervision or labor a share of the products.

Most farms of the third class, designated in 1900 as farms operated by "managers," were reported in 1880 and 1890 as farms of owners. They are farms operated for the owners, or under their general supervision, by salaried managers or overseers. This class includes farms connected with public institutions or owned by corporations, and many of those operated for nonresident owners. All farms not included in one of the five groups—farms operated by cash tenants, share tenants, part owners, owners and tenants, and managers—are included in the group of "owners." In comparing the statistics of tenure for 1900 with the corresponding statistics for earlier years, the farms of "owners," "part owners," "owners and tenants," and "managers" should be consolidated in the group of "owners."

CLASSIFICATION BY COLOR OR RACE OF FARMER.

The act of Congress authorizing the census of 1890 specifically directed that the statistics of agriculture should include, among other data, information concerning the color of farmers. Reports were made as directed on this point, but no tabulation of the information was published.

The act authorizing the present census directed that the schedules relating to agriculture should comprehend the following topics: "Name of occupant of each farm, color of occupant, tenure, acreage, and race of farmer." In accordance with the provisions of this act, the general agricultural schedules and those used in the collection of information relating to live stock on the range provided for inquiries concerning the race or color of the farmers. The races for which specific information was thus received were the Caucasian, or white; the negro, or those of negro descent; the Chinese, Indian, Japanese, Hawaiian, part Hawaiian, and South Sea Islander. The last three races were reported from Hawaii only. The statistics relating to race are given in the general tables under the two heads of "white" and "colored," the latter including the farmers of all races except those of white or Caucasian descent. Detailed statistics of the farms of the different colored races, so far as they were tabulated apart from those of the negro race, are presented elsewhere in the introduction.

FARMS CLASSIFIED BY AREA.

FARMS OF SPECIFIED AREA, BY GEOGRAPHIC DIVISIONS.

Table XXXIII shows for the entire country, and by geographic divisions, the number of farms in each of the 10 groups of farms classified by area. Table XXXIV gives for the United States, and by geographic divisions, the per cent of the total number of farms contained in each of the specified groups.

TABLE XXXIII.—NUMBER OF FARMS IN EACH OF TEN SPECIFIED AREAS IN ACRES, JUNE 1, 1900, BY GEOGRAPHIC DIVISIONS.

GEOGRAPHIC DIVISIONS.	Total.	Under 3.	3 and under 10.	10 and under 20.	20 and under 50.	50 and under 100.	100 and under 175.	175 and under 260.	260 and under 500.	500 and under 1,000.	1,000 and over.
The United States	5,739,657	41,882	226,564	407,012	1,257,785	1,366,167	1,422,328	490,104	377,992	102,547	47,276
North Atlantic	677,506	9,102	42,272	51,809	118,195	191,730	177,540	56,656	25,166	4,040	1,056
South Atlantic	962,225	6,196	54,270	86,699	265,623	216,522	181,290	75,197	53,344	17,191	5,893
North Central	2,196,567	12,868	57,835	77,018	341,129	562,891	656,428	240,963	194,125	41,755	11,560
South Central	1,658,166	6,776	58,258	173,223	498,491	366,525	337,546	100,890	74,555	24,824	17,078
Western	242,908	6,448	18,209	17,892	34,118	28,370	69,463	16,363	30,761	14,716	11,573
Alaska and Hawaii	2,285	497	720	371	289	129	66	35	41	21	116

TABLE XXXIV.—PER CENT OF THE NUMBER OF FARMS IN EACH OF TEN SPECIFIED AREAS IN ACRES, JUNE 1, 1900, BY GEOGRAPHIC DIVISIONS.

GEOGRAPHIC DIVISIONS.	Under 3.	3 and under 10.	10 and under 20.	20 and under 50.	50 and under 100.	100 and under 175.	175 and under 260.	260 and under 500.	500 and under 1,000.	1,000 and over.
The United States	0.7	4.0	7.1	21.9	23.8	24.8	8.5	6.6	1.8	0.8
North Atlantic	1.3	6.2	7.7	17.4	28.3	26.2	8.4	3.7	0.6	0.2
South Atlantic	0.7	5.6	9.0	27.6	22.5	18.8	7.8	5.6	1.8	0.6
North Central	0.6	2.6	3.5	15.5	25.6	29.9	11.0	8.9	1.9	0.5
South Central	0.4	3.5	10.4	30.1	22.1	20.4	6.1	4.5	1.5	1.0
Western	2.6	5.4	7.4	14.0	11.7	28.6	6.7	12.7	6.1	4.8
Alaska and Hawaii	21.8	31.5	16.2	12.7	5.6	2.9	1.5	1.8	0.9	5.1

In 1850 the total number of farms of all sizes in the United States was 1,449,073, while in 1900, out of a total of 5,739,657 farms, there were 3,806,414 each containing 50 acres and over. In 1850 there was 1 farm for every 14 persons residing outside of cities of 8,000 inhabitants and over, while in 1900 the number of farms reported was sufficient to provide 1 for every 8.9 persons residing outside of such cities. Moreover, in 1900 there were sufficient farms of 50 acres and over to provide 1 for every 13.4 persons of such population. These facts show that the greater proportionate increase in the number of farms than in rural population is due, not to the addition of mere potato patches or small tracts of land used incidentally for agricultural purposes, but to a marked increase in the number of real farms. This growth marks an increase among the rural population in the number of families whose head members are their own masters, and is a movement toward economic individualism as distinct as the opposite tendency in cities toward wage service and dependence upon employers.

Of the groups given in table XXXIII, the largest is that of farms with 100 to 175 acres, as the numerous quarter-section farms fall within these limits. The farms in this group constitute 24.8 per cent of all. The next largest group is that of farms containing from 50 to 100 acres, among which the most frequent size is 80 acres, or one-half a quarter section. The number in this group is 23.8 per cent of all. The farms containing less than 3 acres constitute only 0.7 per cent of all, and those with an area of over 1,000 acres make up 0.8 per cent of the total number. The great majority of farms, therefore, are those that can be operated by a farmer with the aid of the members of his own household and with a minimum of hired labor.

Relatively the greatest number of farms containing 100 to 175 acres are found in the North Central and Western states, where they constitute 29.9 and 28.6 per cent, respectively, of all farms. These are the divisions in which the original settlers almost universally took up farms of 160 acres, and in which there has been the least subsequent subdivision. Hawaii has the smallest relative number of farms of this area, only 2.9 per cent, or less than one-tenth the per cent in the North Central states.

The most popular sized farm in the North Atlantic division is from 50 to 100 acres in area, 28.3 per cent of the farms in the division being of this class. For the next larger group the per cent is 26.2, and for the next smaller one, 17.4.

In the South Atlantic and South Central states the most numerous farms are those containing from 20 to 50 acres, 27.6 per cent of all farms in the former division, and 30.1 per cent of those in the latter, being of this class. In most states of the South the typical cotton farm is one of 40 acres, cultivated by one man with only one mule. Such a farm is commonly known as a one-mule farm. In some localities, where the soil is heavy, the area that can be cultivated with one mule is only about 20 acres, and farms of this size, also, are very common throughout the South.

The Western division reported the largest proportionate number of farms of more than 175 acres. They were principally used for grazing, and for growing hay and grain. Hawaii had a large number of very small farms and many farms of extensive area, but few of medium size. In that territory 21.6 per cent of the farms contained less than 3 acres, while no other geographic division had over 2.6 per cent of that size; 31.5 per cent contained 3 and under 10 acres, but in no other

division were over 6.2 per cent of the farms of that area; 5.1 per cent of the farms contained over 1,000 acres, while in the Western division, with its great cattle ranches, only 4.8 per cent of the farms were of that area. In no other division did the farms of this size constitute over 1 per cent of the total number.

The Western division reported a relatively large number of farms under 10 acres. The per cent of farms under 3 acres is 2.6, and those with 3 and less than 10 acres, 5.4. In no other geographic division, except Hawaii, does the per cent of farms with less than 3 acres exceed one-half that for the Western states. The presence of these small farms in the Western division has been fully explained elsewhere.

CHANGES IN TWENTY YEARS IN THE SIZE OF FARMS.

Table XXXV is a summary, 1880 to 1900, by geographic divisions, of the number of farms in each of the 7 groups by area used in the census of 1890. Table XXXVI shows the per cent of the number of farms in each group, by decades and by geographic divisions.

TABLE XXXV.—NUMBER OF FARMS IN EACH OF SEVEN SPECIFIED AREAS IN ACRES, BY GEOGRAPHIC DIVISIONS: SUMMARY 1880 TO 1900.

A.—THE UNITED STATES.

CENSUS YEAR.	Under 10.	10 and under 20.	20 and under 50.	50 and under 100.	100 and under 500.	500 and under 1,000.	1,000 and over.
1900	268,446	407,012	1,257,785	1,366,167	2,290,424	102,547	47,276
1890	150,194	265,550	902,777	1,121,485	2,008,694	84,395	31,546
1880	139,241	254,749	781,574	1,032,810	1,695,983	75,972	28,578

B.—NORTH ATLANTIC DIVISION.

1900	51,374	51,809	118,135	191,780	259,362	4,040	1,056
1890	38,425	49,036	117,214	195,364	254,510	3,287	733
1880	42,221	52,578	126,834	203,168	267,218	4,156	964

C.—SOUTH ATLANTIC DIVISION.

1900	60,466	86,699	265,623	216,522	309,831	17,191	5,893
1890	38,821	63,727	189,431	151,889	275,966	21,736	8,030
1880	32,570	53,977	140,924	124,583	257,620	25,037	9,718

D.—NORTH CENTRAL DIVISION.

1900	70,703	77,018	341,129	562,891	1,091,511	41,755	11,560
1890	36,269	51,984	297,511	526,935	988,218	23,437	4,468
1880	33,661	53,551	295,486	509,160	787,512	15,608	2,990

E.—SOUTH CENTRAL DIVISION.

1900	65,034	173,223	498,491	366,525	512,991	24,824	17,078
1890	31,235	93,818	232,933	232,497	407,328	26,666	12,295
1880	27,110	90,322	209,596	185,727	336,362	25,872	11,659

F.—WESTERN DIVISION.

1900	19,652	17,892	34,118	28,370	116,587	14,716	11,573
1890	5,444	6,985	15,688	14,800	87,672	9,269	6,020
1880	3,679	4,321	9,734	10,172	47,271	5,299	3,247

G.—ALASKA AND HAWAII.[1]

1900	1,217	371	289	129	142	21	116

[1] No report prior to 1900.

TABLE XXXVI.—PER CENT OF THE NUMBER OF FARMS IN EACH OF SEVEN SPECIFIED AREAS IN ACRES, BY GEOGRAPHIC DIVISIONS: SUMMARY 1880 TO 1900

A.—THE UNITED STATES.

CENSUS YEAR.	Under 10.	10 and under 20.	20 and under 50.	50 and under 100.	100 and under 500.	500 and under 1,000.	1,000 and over.
1900	4.7	7.1	21.9	23.8	39.9	1.8	0.8
1890	3.3	5.8	19.8	24.6	44.0	1.8	0.7
1880	3.5	6.3	19.5	25.8	42.3	1.9	0.7

B.—NORTH ATLANTIC DIVISION.

1900	7.6	7.6	17.4	28.3	38.3	0.6	0.2
1890	5.8	7.4	17.8	29.7	38.7	0.5	0.1
1880	6.1	7.5	18.1	29.2	38.4	0.6	0.1

C.—SOUTH ATLANTIC DIVISION.

1900	6.3	9.0	27.6	22.5	32.2	1.8	0.6
1890	5.2	8.5	25.3	20.2	36.8	2.9	1.1
1880	5.0	8.4	21.9	19.3	40.0	3.9	1.5

D.—NORTH CENTRAL DIVISION.

1900	3.2	3.5	15.6	25.6	49.7	1.9	0.5
1890	1.9	2.7	15.5	27.4	51.1	1.2	0.2
1880	2.0	3.1	17.4	30.0	46.4	0.9	0.2

E.—SOUTH CENTRAL DIVISION.

1900	3.9	10.5	30.1	22.1	30.9	1.5	1.0
1890	2.9	8.6	26.0	21.4	37.5	2.5	1.1
1880	3.1	10.2	23.6	21.0	37.9	2.9	1.3

F.—WESTERN DIVISION.

1900	8.1	7.4	14.0	11.7	48.0	6.0	4.8
1890	3.7	4.8	10.8	10.1	60.1	6.4	4.1
1880	4.4	5.2	11.6	12.1	56.5	6.3	3.9

G.—ALASKA AND HAWAII.[1]

1900	53.3	16.2	12.7	5.6	6.2	0.9	5.1

[1] No report prior to 1900.

During the twenty years from 1880 to 1900, the number of farms for the entire country increased in every group. The greatest absolute increase was in the group of farms containing 100 and less than 500 acres, which was from 1,695,983 to 2,290,424, a gain of 594,441, or 35.0 per cent. The next largest gain was in the group containing over 20 and less than 50 acres, which showed an increase from 781,574 to 1,257,785, a gain of 476,211, or 60.9 per cent. In the group with 50 to 100 acres the increase was from 1,032,810 to 1,366,167, a gain of 333,357, or 32.3 per cent.

It is to be noted that the per cent of gain for the group containing from 20 to 50 acres was much larger than for the others, although the numerical increase was less, owing to the comparatively small number of such farms at the beginning of the period. The greater relative increase for this group, and for the two groups of smaller areas, affects the percentages of table XXXVI. The farms of 100 to 500 acres in 1880 constituted 42.3 per cent of all, and in 1900 only 39.9 per cent, a noteworthy

relative decrease in the face of the unprecedented numerical increase. In the same way the per cent of farms with 50 to 100 acres decreased from 25.8 to 23.8. The three groups with smaller areas, however, increased from 3.5 to 4.7 per cent, from 6.3 to 7.1 per cent, and from 19.5 to 21.9 per cent, respectively. No material change was made in the per cent of farms of over 500 acres.

Changes similar to those shown in the totals for the country were exhibited by all the geographic divisions. In the North Central states there was not only a proportionate, but an actual increase in the number of farms containing from 100 to 500 acres, the per cent rising from 46.4 in 1880 to 49.7 in 1900. In the North Atlantic division there was no material change in the per cent, it being 38.4 in 1880, and 38.3 in 1900. Tables XXXIII and XXXIV show that in both the North Central and Western divisions the most common area of farms is 160 acres. The decrease in the relative number of farms of 100 to 500 acres in the South Atlantic and South Central divisions was due to a subdivision of the old plantations and the leasing of small tracts to individual tenants. In the Western division the decrease in the per cent of farms of 100 and less than 500 acres marks the increase in small farms, especially in the irrigated sections.

Both the South Atlantic and South Central divisions showed a greater relative number of farms containing 50 and less than 100 acres in 1900 than they did in 1880. In the South Atlantic states the per cent for this group increased in twenty years from 19.3 to 22.5, and in the South Central states from 21.0 to 22.1, the gain in both instances being due to the subdivision of farms as above noted. The number of farms of this size decreased in the North Atlantic division from 203,168 to 191,730, or from 29.2 per cent to 28.3 per cent. In the other geographic divisions the number of farms containing 100 and less than 500 acres increased, although in the Western states the rate of increase was smaller than for other farms and the percentage was lower in 1900 than in 1880.

The number of farms containing between 20 and 50 acres decreased in the North Atlantic division, but increased in all the others, the greatest gains being in the South Atlantic and South Central states, in which the numerical increase was so much greater for this group than for any other, that in the South Atlantic division the per cent rose in twenty years from 21.9 to 27.6, and in the South Central division, from 23.6 to 30.1. The per cent of the same group of farms increased in the Western division from 11.6 to 14.0, again showing the effect of the development of small fruit and vegetable growing in the irrigated sections.

The Western states showed the greatest increase of any division in the number of farms containing from 10 to 20 acres, which, like that in the next larger group, is incidental to the growth of irrigation. No other division reported any noteworthy change in the relative number of farms of this area.

All of the geographic divisions recorded an increased number of farms containing less than 10 acres, due in part to the inclusion of small dairy farms, poultry farms, florists' establishments, and similar farms of small size not included in previous census reports, and in part to an actual increase in the number of small farms.

FARMS OF SPECIFIED AREA CLASSIFIED BY OTHER CHARACTERISTICS.

Tables 3 and 4 present for each state and territory double classifications of farms by area and by principal source of income, amount of income, value of products of 1899 not fed to live stock, tenure, and race or color of farmer. Table XXXVII gives a summary by percentages of the most important facts in those tables relating to farms classified by area.

TABLE XXXVII.—PER CENT OF FARMS, JUNE 1, 1900, OF SPECIFIED AREA, IN DESIGNATED GROUPS CLASSIFIED BY PRINCIPAL SOURCE OF INCOME, VALUE OF PRODUCTS OF 1899 NOT FED TO LIVE STOCK, TENURE, AND RACE OF FARMER.

A.—FARMS CLASSIFIED BY PRINCIPAL SOURCE OF INCOME.

GROUPS OF FARMS.	Per cent of all farms.	PER CENT OF THE NUMBER OF FARMS OF SPECIFIED AREA IN ACRES.									
		Under 3.	3 and under 10.	10 and under 20.	20 and under 50.	50 and under 100.	100 and under 175.	175 and under 260.	260 and under 500.	500 and under 1,000.	1,000 and over.
All farms	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Hay and grain	23.0	4.1	11.5	14.5	15.1	21.6	29.2	31.0	36.3	32.2	20.8
Vegetable	2.7	10.8	10.5	5.9	3.3	2.2	1.6	1.0	0.8	0.8	0.7
Fruit	1.4	4.7	4.8	3.4	1.8	1.2	0.8	0.6	0.6	0.8	0.7
Live stock	27.3	33.4	24.8	20.1	20.5	28.2	29.8	31.9	33.2	37.2	55.1
Dairy produce	6.2	12.4	6.7	5.0	4.7	6.6	7.4	7.2	5.4	4.4	3.8
Tobacco	1.9	0.9	2.6	3.0	2.2	1.9	1.5	1.6	1.3	1.1	0.3
Cotton	18.7	2.4	11.0	27.7	33.9	17.5	11.5	10.8	9.5	10.8	8.3
Rice	0.1	0.3	0.4	0.2	0.1	0.1	(1)	0.1	0.1	0.2	0.4
Sugar	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.9
Flower and plant	0.1	9.0	0.6	0.1	(1)	(1)	(1)	(1)	(1)	.....	.....
Nursery product	(1)	0.3	0.1	0.1	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Taro	(1)	0.4	0.1	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Coffee	(1)	0.1	0.1	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Miscellaneous	18.5	21.1	26.7	19.8	18.2	20.6	18.1	15.7	12.7	12.3	9.0

TABLE XXXVII.—PER CENT OF FARMS, JUNE 1, 1900, OF SPECIFIED AREA, IN DESIGNATED GROUPS CLASSIFIED BY PRINCIPAL SOURCE OF INCOME, VALUE OF PRODUCTS OF 1899 NOT FED TO LIVE STOCK, TENURE, AND RACE OF FARMER—Continued.

B.—FARMS CLASSIFIED BY VALUE OF PRODUCTS OF 1899 NOT FED TO LIVE STOCK.

GROUPS OF FARMS.	Per cent of all farms.	PER CENT OF THE NUMBER OF FARMS OF SPECIFIED AREA IN ACRES.									
		Under 3.	3 and under 10.	10 and under 20.	20 and under 50.	50 and under 100.	100 and under 175.	175 and under 260.	260 and under 500.	500 and under 1,000.	1,000 and over.
$0	0.9	3.2	2.3	2.2	1.0	0.5	0.9	0.3	0.6	1.1	2.7
$1 and under $50	2.9	14.9	16.9	8.2	3.6	1.4	1.3	0.5	0.6	0.9	1.3
$50 and under $100	5.3	19.0	24.3	15.7	7.1	3.3	2.4	1.0	1.1	1.4	1.7
$100 and under $250	21.8	33.0	38.1	44.8	36.2	19.9	12.4	6.8	5.6	5.4	5.3
$250 and under $500	27.9	11.0	12.4	21.9	37.5	36.2	25.2	17.8	14.0	11.8	8.6
$500 and under $1,000	24.0	6.7	3.9	5.2	12.3	30.7	34.6	31.1	25.8	21.8	15.3
$1,000 and under $2,500	14.5	7.0	1.5	1.6	2.0	7.4	21.8	37.3	39.6	33.3	25.6
$2,500 and over	2.7	5.2	0.6	0.4	0.3	0.6	1.4	5.2	12.7	24.3	39.5
C.—FARMS CLASSIFIED BY TENURE.											
Owners	54.9	68.9	53.6	38.8	43.2	60.3	63.0	58.0	57.5	53.8	42.5
Part owners	7.9	1.3	3.5	4.4	4.9	7.1	7.3	13.0	16.7	22.1	29.7
Owners and tenants	0.9	0.2	0.2	0.3	0.5	0.9	1.3	1.6	1.6	1.5	0.9
Managers	1.0	2.2	0.7	0.6	0.5	0.7	0.9	1.3	2.0	4.3	13.0
Cash tenants	13.1	21.5	22.5	19.9	18.5	11.5	9.7	9.3	7.4	7.1	7.4
Share tenants	22.2	5.9	19.5	36.0	32.4	19.5	17.8	16.8	14.8	11.2	6.5
D.—FARMS CLASSIFIED BY RACE OF FARMER.											
White	86.6	86.2	76.3	69.8	72.4	90.0	95.1	96.4	97.3	96.8	97.6
Negro	13.0	10.6	22.4	29.4	27.3	9.8	4.7	3.4	2.3	2.0	1.0
Indian	0.4	1.9	0.9	0.7	0.3	0.2	0.2	0.2	0.4	1.2	1.3
Chinese	(1)	0.6	0.2	0.1	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Japanese	(1)	0.4	0.1	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Hawaiian [2]	(1)	0.3	0.1	(1)	(1)	(1)	(1)	(1)	(1)	(1)	0.1

[1] Less than one-tenth of 1 per cent.

[2] Including part Hawaiian and 1 South Sea Islander.

The foregoing table discloses a natural relation between farms of certain areas and certain branches of agriculture. Nearly all the groups, by area, contain some farms of each of the various specified principal sources of income, but the farms having such sources of income are by no means equally distributed among the groups. Of those containing 260 acres and over, 34.1 per cent were hay and grain farms, while of those with less than 3 acres, only 4.1 per cent derived their principal income from hay and grain. Of farms with 20 and under 50 acres, 33.9 per cent were cotton farms, while of those with less than 3 acres, cotton was the principal source of income of only 2.4 per cent. Of farms with less than 3 acres, 10.8 per cent were vegetable or market-garden farms, while of those with 1,000 acres and over, only 0.7 per cent derived their principal income from this source.

Certain branches of agriculture are conducted most profitably upon farms of certain specified areas, and farms making any branch their principal source of income are naturally most numerous in the groups shown by experience to yield greatest proportionate returns for the labor and capital employed.

Hay and grain farms form one of the largest groups classified by principal source of income. In 1900 they constituted 23.0 per cent of all farms, 31.0 per cent of the farms containing 175 and under 260 acres, 36.3 per cent of those containing 260 and under 500 acres, and 32.2 per cent of those with 500 and under 1,000 acres. Farms of these areas may, therefore, be said to have a peculiar adaptability to the production of hay and grain as the principal source of income, and in localities where the raising of these products for sale is the principal branch of agriculture, the farms tend to adjust themselves to these areas. It should be noted that the percentages of hay and grain farms given in table XXXVII constitute a regular series with a minimum of 4.1 per cent for those of smallest area and rising uninterruptedly to 36.3 per cent for the group with 260 to 500 acres, and then decreasing to farms of largest areas. Farms of from 260 to 500 acres are evidently best adapted to securing the greatest returns from hay and grain.

The raising of vegetables, fruits, flowers, ornamental plants, or nursery stock, as a principal or exclusive business, must necessarily be carried on under conditions radically different from those attending the raising of hay and grain. It calls for intensive soil cultivation, the expenditure of a large amount of labor, and the application of great quantities of fertilizers. Considerable capital is necessary if an extensive area is to be cultivated. The average farmer, florist, or nurseryman does not possess this, and hence these branches of agriculture are ordinarily conducted on small tracts. In 1900 they were most numerous in the group of farms of less than 10 acres, and the percentages, as given in table XXXVII, form a series with the maximum in the group of less than 3 acres, descending, as a rule, in unbroken order to farms of the largest area.

The vegetable or market-garden farms constituted only 2.7 per cent of all farms, but 10.8 per cent of those under 3 acres, 10.5 per cent of those with 3 and under 10 acres, and only 0.7 per cent of those with over 1,000 acres.

Fruit farms constituted 1.4 per cent of all farms, 4.7 per cent of those under 3 acres, 4.8 per cent of those with 3 and under 10 acres, and only 0.7 per cent of those with over 1,000 acres.

The florists' establishments, or farms making the cultivation of flowers and plants their principal source of income, were not very numerous, constituting only 0.1 per cent of all farms, but 9.0 per cent of the farms of less than 3 acres. They did not constitute 1.0 per cent of the farms of any other group, and in only two other groups did they approximate one-tenth of 1 per cent.

The growing of nursery stock, as the principal source of income, was carried on by the operators of but very few farms—less than 0.1 per cent of the total. But such farms constituted 0.3 per cent of the farms under 3 acres, and 0.1 per cent of those with 3 and under 10 acres, and of those with 10 and under 20 acres.

The cultivation of coffee and taro was confined to the Hawaiian Islands, and the farms deriving their principal income therefrom constituted only a small fraction of 1 per cent of all farms in the country. The coffee farms comprised less than 0.1 per cent of all farms of less than 3 acres, and 0.1 per cent of those of 3 and under 10 acres. Taro farms constituted 0.4 per cent of the farms of less than 3 acres and 0.1 per cent of those of 3 and under 10 acres.

The cultivation of cotton requires the use of fertilizers and a great amount of labor, and involves what is ordinarily designated as an intensive cultivation of the soil. Its culture naturally adjusts itself to farm areas smaller than are commonly used in growing hay and grain, but larger than those usually employed in the cultivation of vegetables, fruits, or flowers. The cotton farms constituted 18.7 per cent of all farms in the country, 33.9 per cent of the farms of 20 and under 50 acres, and 27.7 per cent of those of 10 and under 20 acres. Of the group of less than 3 acres they constituted only 2.4 per cent, and 8.3 per cent of those with over 1,000 acres.

The largest relative number of tobacco farms was found in the group of from 10 to 20 acres. They constituted 3.0 per cent of the farms of that group, 0.3 per cent of the group of largest farms, and 0.9 per cent of the group of smallest farms.

The percentages for rice farms vary in a manner substantially the reverse of those for cotton and tobacco farms, having been relatively most numerous in the groups of smallest and largest areas, and least numerous in the group of 100 to 175 acres. In the Southern states rice is grown mainly on large plantations, consequently the largest relative number of rice farms is found in the group of farms of greatest area. In Hawaii conditions are reversed, rice culture being largely in the hands of the Chinese and Japanese and conducted almost exclusively on small farms.

Sugar farms were more evenly distributed among the groups by area than those of any other class, some being found in each group. Those in the smaller groups were farms principally devoted to the growing of sugar beets; those of medium size, to the production of sorghum and to the growing of cane for sale to the central factories; and those of largest area were plantations growing sugar cane on a large scale, as in Louisiana and Hawaii.

Live-stock farms were relatively least numerous in the group of farms of 10 and under 20 acres, constituting but 20.1 per cent of all farms of that area. From this group the percentages increase, on the one hand, to that of farms of largest area, of which they constituted 55.1 per cent, and, on the other hand, to the group of smallest area, of which they constituted 33.4 per cent. The live-stock farms in the group of smallest area were largely composed of that class heretofore referred to as using public domain or vacant city lots, and of small farms whose operators derived their principal income from poultry or from bees. These last-named farms, however, are relatively so few in number that their inclusion does not affect the percentages.

The dairy farms were fairly well distributed among all the groups, being relatively most numerous in the group of less than 3 acres. These are the small farms in or near cities where cows are kept to supply milk and cream for the retail trade. The next largest relative number is found in the group of 100 to 175 acres. The operators of the smaller dairy farms in many localities had the use of vacant lots for pasturage, but the area of such additional land was not included in their reports.

With the exception of the group of farms with no reported income, the farms classified by reported income, or value of products of 1899 not fed to live stock, arrange themselves in a series with respect to the relative number in each group. The farms with incomes of less than $50 and those with incomes of $50 and less than $100 were relatively most numerous in the group with 3 and less than 10 acres; farms with incomes of $100 and less than $250, in the group with areas of from 10 to 20 acres; and those with incomes of $250 and less than $500, in the group containing 20 and less than 50 acres. Farms with incomes of $500 and less than $1,000 constituted a larger per cent of the group containing 100 and less than 175 acres than of any other. Those with incomes of $1,000 and less than $2,500 were relatively most numerous in the group containing from 260 to 500 acres; while those with incomes of over $2,500 had their maximum per cent in the groups with areas of over 1,000 acres. The group of less than 3 acres had a large per cent of farms with incomes of over $500. These are principally florists' establishments, nurseries, city dairies, fruit and vegetable farms, and the live-stock farms using the public domain.

The farms with no income were more numerous in

the groups with very small and very large areas than in those of medium size. The reason for this is fully explained in the discussion of farms classified by amount of income.

The percentages of table XXXVII bring out quite forcibly the relation between the size of farms and farm tenure. The percentages for farms of cash tenants form a nearly regular descending series from those of smallest to those of largest area, constituting 21.5 per cent of farms with less than 3 acres, 22.5 per cent of those with 3 and less than 10 acres, only 7.1 per cent of those with from 500 to 1,000 acres, and 7.4 per cent of those with over 1,000 acres. The per cent of farms cultivated by share tenants was largest for farms with 10 and under 20 acres.

Taking the other four groups of farms together, those operated wholly or in part by the labor of owners, and those operated for owners by salaried managers, it is found that their united percentages form a series exactly the reverse of that of share tenants, and practically the reverse of that of cash tenants. They had the smallest relative number in the group of 10 to 20 acres, or only 44.1 per cent of the total for that group. For farms of larger areas the percentages increased with the size of farms, as follows: 49.1, 69.0, 72.5, 73.9, 77.8, 81.7, and 86.1. For farms of less than 3 acres the per cent was 72.6, and for those with 3 and under 10 acres, 58.0.

Farms of less than 10 acres, and especially those of less than 3 acres, as has been shown, included an exceptionally large number of fruit and vegetable farms, florists' establishments, nurseries, and city dairies, most of which were conducted by their owners and which required considerable capital for their operation. The value of the property in these small farms, as shown by table XXXIX, was much larger than that for the average farm of from 20 to 50 acres. The same table shows, also, that the average value per farm of all farm property was smallest for farms containing 10 and less than 20 acres, and increased in a regular series toward those with smallest and those with largest areas. Taking these facts into consideration, the percentages of table XXXVII may be interpreted in the following general way:

The highest per cent of farms operated by owners, or for them by salaried managers, is found among the farms with largest average area and value, and the lowest per cent, among those with small average area and the least average value. The percentages of farms with areas and values between these extremes, operated by owners or for them by managers, make a continuous and more or less regular ascending series from farms of small area and of least value to those of the greatest. The series of percentages for farms operated by tenants are of the opposite character, being least for farms with largest areas and values and greatest for those with low areas and least values. Of the farms having the least average values, tenants operated 55.9 per cent, and all owners only 44.1 per cent, while of farms of largest areas and values, tenants operated 13.9 per cent, and all owners, 86.1 per cent.

The percentages for that class of owners designated "part owners" form a most interesting series. The farms of this character, as is fully explained in the discussion of tenures, embrace the land owned by the operator, and that of all additional tracts rented or leased by him for agricultural purposes and used in connection with the part of the farm owned by him. Few farms of this class were found in the smaller groups, but with the increasing size the relative number of "part owner" farms increases, and of the farms of over 1,000 acres they constituted 29.7 per cent, while the farms operated by "owners" constituted 42.5 per cent; by "owners and tenants," 0.9 per cent; by "managers," 13.0 per cent; and by "tenants," 13.9 per cent. In the case of farms containing over 175 acres there appears to be a tendency on the part of the owners to trust the active management and labor, in whole or in part, to others. To this fact is partly due the relatively large number of such farms conducted by "managers," "part owners," and "owners and tenants." That there is no apparent tendency among owners to surrender the care of their large farms to either share or cash tenants is indicated by the gradually diminishing percentages of those forms of tenure among farms of larger areas.

For groups of farms classified by race of farmer, in only two cases are the percentages of table XXXVII sufficiently large to warrant any deductions of value. The farms of white farmers show a series of percentages that corresponds with that of the combined four classes of owners, and the farms of negroes exhibit by their percentages a reverse series, which corresponds with that of the combined share and tenant farms. The white farmers had the largest per cent of all farms. Of the farms of highest values they operated 97.6 per cent, and of those with the lowest values, 69.8 per cent. The negroes operated 29.4 per cent of the least valuable farms and only 1.0 per cent of those of greatest values. The values for their farms of over 10 acres correspond with those of similar areas for all farms, but not with those of smaller areas.

ACREAGE OF FARMS OF SPECIFIED AREA.

Table 15 gives detailed statistics, by states and territories, of the number and acreage of farms, values of specified forms of farm property, value of products, and expenditures for labor and fertilizers, with averages and percentages for farms of the 10 groups of farms classified by area. In table XXXVIII is given a summary for the United States of the area of all farms and the area of improved land therein, together with certain percentages and averages.

TABLE XXXVIII.—ACRES OF ALL LAND AND OF IMPROVED LAND, JUNE 1, 1900, IN GROUPS OF FARMS CLASSIFIED BY AREA IN ACRES, WITH PERCENTAGES AND AVERAGES.

FARMS CLASSIFIED BY AREA.	Total.	Improved.	Per cent improved.	AVERAGE.	
				All land.	Improved land.
Total	841,201,546	414,793,191	49.3	146.6	72.3
Under 3	79,508	69,590	87.5	1.9	1.7
3 and under 10	1,402,391	1,266,671	90.3	6.2	5.6
10 and under 20	5,708,458	5,112,046	89.6	14.0	12.6
20 and under 50	41,544,644	33,006,401	79.4	33.0	26.2
50 and under 100	98,600,285	67,348,377	68.3	72.2	49.3
100 and under 175	192,688,074	118,393,656	61.4	135.5	83.2
175 and under 260	103,289,564	63,203,138	61.2	210.8	129.0
260 and under 500	129,686,228	72,331,457	55.8	343.1	191.4
500 and under 1,000	67,878,349	29,478,047	43.4	661.9	287.5
1,000 and over	200,324,045	24,583,808	12.3	4,237.3	520.0

The above table shows that the relative area of improved land was largest in the small farms and decreased regularly to those of largest areas, being 87.5 and 90.3 per cent for the two groups under 10 acres and only 12.3 per cent in that with 1,000 acres and over. The average number of acres of all land to a farm was 146.6. For the group of farms with 100 to 175 acres, which was the most numerous of any group of farms classified by area, the average was 135.5 acres. The average area of improved land per farm in the country was 72.3 acres, while for the group of farms with 100 to 175 acres the average was 83.2.

GEOGRAPHIC DISTRIBUTION OF FARMS BY AVERAGE SIZE.

Some consideration was given to the geographic distribution of farms by average size in the discussion of table XXXV, but attention was called only to the changes since 1880 in the number and per cent of farms of various areas. The discussion of the facts disclosed by table XXXVII makes clear the explanation of the difference shown on Plate 6, which is a presentation of the distribution of farms by average areas.

Nearly one-half of the counties in which the average farm area was less than 80 acres were situated in the territory embracing the rich alluvial deposits of the lower Mississippi River and its tributaries. They were counties engaged largely in the cultivation of cotton. The intimate relation between the distribution of counties in the Southern states with an average farm area of less than 80 acres, and the cultivation of cotton, may be seen by comparing the shadings of Plate 3 with those showing the yield of cotton per square mile as given in Plate 16, of Part II, of this report. The portions of Oklahoma, Arkansas, and Texas included in farms of the same average areas were largely devoted to the cultivation of cotton, and the same is true of the greater portion of the correspondingly shaded counties in Alabama, Georgia, and the Carolinas.

Mention should be made, also, of the fact that the fruit-growing counties of Florida, New York, Washington, and Ohio, and the counties extensively engaged in the growing of market-garden truck and sugar beets appear quite generally in the areas shaded for farms of less than 80 acres.

The counties with average farm areas ranging from 80 to 160 acres cover the greater portion of the states east of the Mississippi River. They are counties mainly devoted to general farming, including dairying, stock raising, and the production of hay and grain. To the west of the area covered by these farms is found a more or less well-defined strip of country with average areas ranging from 160 to 320 acres, and west of that, a region with farms containing from 320 to 640 acres. Both of these sections were engaged largely either in cultivating grain or in raising and feeding live stock—branches of agriculture shown by table XXXVII to be those in connection with which the largest relative number of hay and grain and live-stock farms were found.

In the far West the counties with farms of the smallest average size were those where irrigation is being extensively practiced. The unshaded or unsettled portions are sections utilized for the grazing of cattle, and contain the great cattle and sheep ranches, with flocks and herds roaming at large on the public domain. The counties east of the Mississippi River showing farms of an average size exceeding 160 acres were comparatively few. They represent, in some cases, counties with much very poor or uncultivable land, and in others, large stock and grain farms which have not been so generally subdivided as in neighboring counties.

PROPERTY OF FARMS OF SPECIFIED AREAS.

Table XXXIX gives the number of farms of 10 specified areas, the total value of all farm property, and its average values per farm and per acre. The lowest average per farm was $1,055, for farms of 10 and under 20 acres, and the highest, $33,156, for farms of largest area. With the exception of the group of 10 and under 20 acres, the averages form an unbroken ascending series from the smallest to the largest farms. The farms of less than 3 acres had a higher average value than those of any other group of less than 50 acres, which is due to the fact that it contains most of the florists' establishments and kindred farms with valuable land and buildings. The average per acre, with a single exception, decreases with the increased size of farms, being $1,124.43 for the smallest and only $7.82 for the largest farms.

TABLE XXXIX.—TOTAL AND AVERAGE VALUES PER FARM AND PER ACRE, JUNE 1, 1900, OF ALL FARM PROPERTY, FOR FARMS OF SPECIFIED AREAS.

FARMS CLASSIFIED BY AREA.	Number of farms.	VALUE OF ALL FARM PROPERTY.		
		Total.	Average.	
			Per farm.	Per acre.
All farms	5,739,657	$20,514,001,838	$3,574	$24.39
Under 3	41,882	89,401,102	2,135	1,124.43
3 and under 10	226,564	250,373,458	1,105	178.53
10 and under 20	407,012	429,590,911	1,055	75.26
20 and under 50	1,257,785	1,610,106,332	1,280	38.76
50 and under 100	1,366,167	3,414,276,089	2,499	34.63
100 and under 175	1,422,328	5,721,630,282	4,023	29.69
175 and under 260	490,104	3,093,135,224	6,311	29.95
260 and under 500	377,992	3,136,396,541	8,298	24.18
500 and under 1,000	102,547	1,201,603,836	11,718	17.70
1,000 and over	47,276	1,567,488,063	33,156	7.82

Table XL gives for the groups of farms, classified by area, the per cent of the total value of all farm property for each of the four specified forms thereof.

TABLE XL.—PER CENT OF THE VALUE OF ALL FARM PROPERTY, IN FOUR SPECIFIED FORMS THEREOF, FOR DESIGNATED GROUPS OF FARMS CLASSIFIED BY AREA IN ACRES.

FARMS CLASSIFIED BY AREA.	Farm land, exclusive of buildings.	Buildings.	Implements and machinery.	Live stock.
All farms	63.9	17.4	3.7	15.0
Under 3	26.3	30.6	2.5	40.6
3 and under 10	48.4	38.7	3.8	9.1
10 and under 20	55.1	29.9	3.9	11.1
20 and under 50	58.7	23.6	4.3	13.4
50 and under 100	61.5	21.3	4.2	13.0
100 and under 175	64.4	18.0	3.8	13.8
175 and under 260	67.5	16.0	3.3	13.2
260 and under 500	68.3	13.6	3.2	14.9
500 and under 1,000	66.9	12.0	3.2	17.9
1,000 and over	62.0	6.8	3.7	27.5

The percentages of the above table form a more or less regular series for each of the classes of farm property. The per cent of the value of land was least for the smallest farms and rises in an unbroken series to farms containing 260 and under 500 acres, and thereafter decreases. The decrease in the last two groups arises from the fact that these large farms were mostly live-stock farms containing much very cheap land and having thereon large numbers of live stock, as shown by the percentages in the last column of the table.

The percentages for the value of buildings are practically the reverse of those for land values, being largest for farms with 3 and under 10 acres and smallest for those with areas of over 1,000 acres. The lower percentage for buildings on farms with less than 3 acres than for those on farms with from 3 to 10 acres, is due to the inclusion in that group of many ranches in the West with headquarters on small farms and using the public domain for the grazing of live stock. For such farms the value of animals was greater than that of land or buildings, and for some, especially sheep ranches, no land or buildings were reported.

For the reasons just stated, the relative value of live stock was very large for the group with less than 3 acres. It was smallest for the group with 3 and less than 10 acres, and rises in an unbroken series, with but two slight exceptions, to the farms of largest area.

There are no very striking variations in the percentages for the value of implements and machinery. The maximum is for farms of 20 to 50 acres, and the minimum for those under 3 acres.

LAND AND BUILDINGS OF FARMS OF SPECIFIED AREAS.

Table XLI presents the values of farm land and buildings, with the per cent of the total represented by the value of buildings.

TABLE XLI.—VALUE OF LAND AND BUILDINGS, JUNE 1, 1900, OF FARMS OF SPECIFIED AREA IN ACRES, WITH PERCENTAGES.

FARMS CLASSIFIED BY AREA.	Total.	Land and improvements (except buildings).	Buildings.	Per cent in buildings.
Total	$16,674,690,247	$13,114,492,056	$3,560,198,191	21.4
Under 3	50,892,942	23,532,174	27,360,768	53.8
3 and under 10	218,074,250	121,093,287	96,980,993	44.5
10 and under 20	365,346,125	236,757,170	128,588,955	35.2
20 and under 50	1,325,040,897	944,525,235	380,515,662	28.7
50 and under 100	2,824,836,003	2,098,257,553	726,578,450	25.7
100 and under 175	4,713,508,480	3,683,579,483	1,029,928,997	21.9
175 and under 260	2,580,681,833	2,087,139,675	493,545,158	19.1
260 and under 500	2,568,592,854	2,142,614,680	425,978,174	16.6
500 and under 1,000	948,236,730	804,420,181	143,816,549	15.2
1,000 and over	1,079,477,133	972,572,618	106,904,515	9.9

The most noteworthy fact disclosed by this table is the great relative value of buildings upon farms of small area, and their smaller relative value upon farms of larger area. For the United States the value of buildings represented 21.4 per cent of the value of all farm land and improvements. Of the farms under 3 acres, the value of buildings constituted 53.8 per cent, and of the farms with 1,000 acres and over, only 9.9 per cent. The percentages form an unbroken descending series from farms of smallest to those of largest area.

Table XLII gives the number of farms in the various groups classified by area, the number and per cent of those with buildings, and the average value of land and buildings.

TABLE XLII.—NUMBER OF FARMS, JUNE 1, 1900, AND NUMBER AND PER CENT OF THOSE WITH BUILDINGS, WITH AVERAGE VALUES OF LAND AND BUILDINGS, FOR FARMS OF SPECIFIED AREAS IN ACRES.

FARMS CLASSIFIED BY AREA.	NUMBER OF FARMS.			AVERAGE VALUE OF—			
				Land.		Buildings.	
	Total.	With buildings.	Per cent with buildings.	Per farm.	Per acre.	Per farm.	Per farm with buildings.
Total	5,739,657	5,537,731	96.5	$2,285	$15.59	$620	$643
Under 3	41,882	36,153	86.3	562	295.97	653	757
3 and under 10	226,564	207,751	91.7	534	86.35	428	467
10 and under 20	407,012	371,222	91.2	582	41.47	316	346
20 and under 50	1,257,785	1,194,867	95.0	751	22.74	303	318
50 and under 100	1,366,167	1,327,306	97.1	1,536	21.28	532	547
100 and under 175	1,422,328	1,398,950	98.4	2,590	19.12	724	736
175 and under 260	490,104	482,619	98.5	4,259	20.21	1,007	1,023
260 and under 500	377,992	372,854	98.6	5,669	16.52	1,127	1,142
500 and under 1,000	102,547	100,577	98.2	7,844	11.85	1,403	1,428
1,000 and over	47,276	45,432	96.1	20,572	4.85	2,261	2,353

The per cent of farms with buildings was lower for those of less than 3 acres than for any other group, being 86.3 per cent. For farms with 3 and under 10 acres the corresponding per cent was 91.7, and for those with 10 and under 20 acres, 91.2. For all other groups it was considerably higher, being 95.0 for groups of farms with 20 to 50 acres, and highest, 98.6, for the group with 260 to 500 acres.

The average value of land per farm was lowest for farms with 3 and under 10 acres, and rises steadily from farms of that size to those of largest area, and was also exceeded by those under 3 acres. The value per acre descends in an unbroken series, with but one slight exception, from the smallest to the largest farms. The average value per acre of the smallest farms was $295.97, and of the largest, $4.85.

The average value of buildings per farm reporting was $318 for farms with 20 and under 50 acres, and rises to $757 for those with less than 3 acres, and to $2,353 for those with 1,000 acres and over.

IMPLEMENTS AND MACHINERY, AND LIVE STOCK ON FARMS OF SPECIFIED AREAS.

Table XLIII shows the total value, and the average values per farm and per acre, June 1, 1900, of implements and machinery on farms of specified areas.

TABLE XLIII.—TOTAL VALUE, AND AVERAGE VALUES, PER FARM AND PER ACRE, OF FARM IMPLEMENTS AND MACHINERY, JUNE 1, 1900, FOR FARMS OF SPECIFIED AREAS IN ACRES.

FARMS CLASSIFIED BY AREA.	Number of farms.	VALUE OF IMPLEMENTS AND MACHINERY.			
		Total.	Average.		Per cent of value of land.
			Per farm.	Per acre.	
Total	5,739,657	$761,261,550	$133	$0.90	5.8
Under 3	41,882	2,192,096	53	27.57	9.3
3 and under 10	226,564	9,411,363	42	6.71	7.8
10 and under 20	407,012	16,838,575	41	2.95	7.1
20 and under 50	1,257,785	68,581,030	54	1.65	7.3
50 and under 100	1,366,167	144,878,720	106	1.47	6.9
100 and under 175	1,422,328	219,827,160	155	1.14	6.0
175 and under 260	490,104	103,670,576	211	1.00	5.0
260 and under 500	377,992	99,485,959	263	0.77	4.6
500 and under 1,000	102,547	38,599,330	377	0.57	4.8
1,000 and over	47,276	57,776,742	1,222	0.29	5.9

The average values of implements and machinery per farm and per acre vary in a manner similar to those for land. The average per farm was lowest for farms with 10 and under 20 acres, increasing steadily in both directions to those with smallest and with largest areas. The average for farms under 3 acres was $53; for farms of 10 and under 20 acres, $41; for farms of 1,000 acres and over, $1,222; and for all farms, $133. The average per acre shows decreases in an unbroken series from farms under 3 acres, where it was $27.57, to the largest farms, for which it was only $0.29.

The percentages also form a series of the same general character, but exhibit less marked variations. The implements and machinery on farms of less than 3 acres had a value equal to 9.3 per cent of the value of land with improvements, exclusive of buildings. For farms of from 260 to 500 acres the corresponding per cent was 4.6, and for farms with over 1,000 acres, 5.9.

Table XLIV shows the total value, and the average values, per farm and per acre, of live stock, June 1, 1900, for farms of specified areas.

TABLE XLIV.—TOTAL VALUE, AND AVERAGE VALUES, PER FARM AND PER ACRE, OF LIVE STOCK, JUNE 1, 1900, FOR FARMS OF SPECIFIED AREAS IN ACRES.

FARMS CLASSIFIED BY AREA.	Number of farms.	VALUE OF ALL LIVE STOCK.		
		Total.	Average.	
			Per farm.	Per acre.
All farms	5,739,657	$3,078,050,041	$536	$3.66
Under 3	41,882	36,316,064	867	456.76
3 and under 10	226,564	22,887,845	101	16.32
10 and under 20	407,012	47,406,211	116	8.30
20 and under 50	1,257,785	216,484,405	172	5.21
50 and under 100	1,366,167	444,561,366	325	4.51
100 and under 175	1,422,328	788,294,642	554	4.09
175 and under 260	490,104	408,779,816	834	3.96
260 and under 500	377,992	468,317,728	1,239	3.61
500 and under 1,000	102,547	214,767,776	2,094	3.16
1,000 and over	47,276	430,234,188	9,101	2.15

The very large average values of live stock per farm and per acre in the group of farms with less than 3 acres is another indication of the presence in this group of ranches using the public domain, the operators of which actually owned or rented less than 3 acres of the land they used, and of dairies in or near cities, with cows kept in barns, or pastured on the unfenced lots, to which attention has been called in the discussion of tables XXXIII, XXXIV, and XXXVI. With the exception of this group, the average value of live stock per farm rises in an unbroken series from the smallest to the largest—from $101 for farms with 3 and under 10 acres, to $9,101 for those with 1,000 acres and over. For farms with less than 3 acres the average per farm was $867, and for farms of all sizes, $536. The averages per acre form an unbroken descending series from the smallest to the largest farms, ranging from $456.76 for those with less than 3 acres to $2.15 for those with 1,000 acres and over. The average per acre for all farms was $3.66.

More detailed statistics relating to the number and character of farms of less than 3 acres are given in tables CXLVII and CXLVIII. Tables CCXII and CCXIII give additional information pertaining to farms of less than 3 acres that were operated in connection with sheep ranches.

FARMS CLASSIFIED BY PRINCIPAL SOURCE OF INCOME.

NUMBER OF FARMS OF SPECIFIED PRINCIPAL SOURCES OF INCOME, BY GEOGRAPHIC DIVISIONS.

Table XLV presents a brief summary, by geographic divisions, of the number of farms of specified principal sources of income. Table XLVI gives the per cent of the number of farms in each group, according to principal source of income, for the United States, and for each geographic division.

TABLE XLV.—NUMBER OF FARMS OF SPECIFIED PRINCIPAL SOURCES OF INCOME, JUNE 1, 1900, BY GEOGRAPHIC DIVISIONS.

GEOGRAPHIC DIVISIONS.	Total.	Hay and grain.	Vegetables.	Fruits.	Live stock.	Dairy produce.	Tobacco.	Cotton.	Rice.	Sugar.	Flowers and plants.	Nursery products.	Taro.	Coffee.	Miscellaneous.
The United States	5,739,657	1,319,856	155,898	82,176	1,564,714	357,578	106,272	1,071,545	5,717	7,344	6,159	2,029	441	512	1,059,416
North Atlantic	677,506	79,653	44,041	19,762	171,139	174,910	5,803	.....	.....	123	3,237	496	.....	.....	178,342
South Atlantic	962,225	146,370	29,997	11,282	135,109	11,671	47,824	332,690	2,307	305	318	169	.....	.....	244,183
North Central	2,196,567	796,985	47,579	20,331	916,907	108,403	10,621	2,243	.....	1,258	1,971	836	.....	.....	289,433
South Central	1,658,166	224,986	22,251	8,116	271,615	34,940	42,001	736,612	2,910	4,588	274	287	.....	.....	309,586
Western	242,908	71,860	11,920	22,569	69,745	27,620	1	.....	.....	900	359	241	.....	.....	37,693
Alaska and Hawaii	2,285	2	110	116	199	34	22	.....	500	170	.....	.....	441	512	179

TABLE XLVI.—PER CENT OF THE NUMBER OF FARMS OF SPECIFIED PRINCIPAL SOURCES OF INCOME, JUNE 1, 1900, BY GEOGRAPHIC DIVISIONS.

GEOGRAPHIC DIVISIONS.	Hay and grain.	Vegetables.	Fruits.	Live stock.	Dairy produce.	Tobacco.	Cotton.	Rice.	Sugar.	Flowers and plants.	Nursery products.	Taro.	Coffee.	Miscellaneous.
The United States	23.0	2.7	1.4	27.3	6.2	1.9	18.7	0.1	0.1	0.1	(1)	(1)	(1)	18.5
North Atlantic	11.8	6.5	2.9	25.3	25.8	0.8	.....	.....	(1)	0.5	0.1	.....	.....	26.3
South Atlantic	15.2	3.1	1.2	14.1	1.2	5.0	34.6	0.2	(1)	(1)	(1)	.....	.....	25.4
North Central	36.3	2.2	0.9	41.7	4.9	0.5	0.1	.....	0.1	0.1	(1)	.....	.....	13.2
South Central	13.6	1.3	0.5	16.4	2.1	2.5	44.4	0.2	0.3	(1)	(1)	.....	.....	18.7
Western	29.6	4.9	9.3	28.7	11.4	(1)	.....	.....	0.4	0.1	0.1	.....	.....	15.5
Alaska and Hawaii	0.1	4.8	5.1	8.7	1.5	1.0	(1)	21.9	7.4	.....	.....	19.3	22.4	7.8

[1] Less than one-tenth of 1 per cent.

The most numerous class shown in tables XLV and XLVI is that designated as live-stock farms, which comprised 1,564,714 farms, or 27.3 per cent of all in the United States. The three next largest classes, the only others reporting over 10 per cent of the total number of farms, are the hay and grain, cotton, and miscellaneous farms, with 23.0, 18.7, and 18.5 per cent, respectively. The next largest class is that of dairy farms, containing 6.2 per cent. Vegetable or market-garden farms constituted only 2.7 per cent of the total number of farms; tobacco farms, 1.9 per cent; and fruit farms, 1.4 per cent. No other class of farms contained more than one-tenth of 1 per cent of the total.

Live-stock farms were relatively most numerous in the North Central division, which also contained the largest per cent of hay and grain farms. These two classes of farms constituted 78.0 per cent of all farms in that division, and in addition 13.2 per cent were miscellaneous farms, which received the greater portion of their income from hay and grain and live stock. Live-stock farms were relatively more than one and one-half times as numerous in the North Central division as in the Western division, and the value of live stock on such farms was over four times as great in the former as in the latter.

Table XLVI shows that the hay and grain farms outnumbered the live-stock farms in the Western division, while in the North Central, the reverse was true. This apparent anomaly is due to the fact that the large live-stock ranches of the West, as a rule, produce but little hay and grain, the greater portion being purchased from the small farmers, many of whom make use of irrigation. These small farms are becoming relatively numerous, and obtain a sure and increasing income from the cultivation of hay and grain to be sold to the large ranches, or to be fed to cattle or sheep of their own raising. Farmers with small holdings have secured a foothold through the use of irrigation, and by its aid have weakened the power of the monopoly which the wealthy cattlemen once exercised over the great plains. One evidence of this fact is furnished by the considerable percentage of hay and grain, vegetable, fruit, dairy, and miscellaneous farms shown in the Western division. In 1900 these five

classes of farms together comprised 70.7 per cent of all farms in that division, while the live-stock farms constituted only 28.7 per cent. If the figures for 1890 were available, large relative increases in the numbers of all these five classes of farms and a corresponding decrease in the number of live-stock farms would unquestionably be shown.

The most numerous class of farms in the South Atlantic and South Central states was that devoted to raising cotton. The cotton farms in the former division constituted 34.6 per cent, and in the latter 44.4 per cent, of all farms. Tobacco farms were relatively more numerous in the South Atlantic than in the South Central states, and yet they constituted only 5.0 per cent of all farms in that division. Neither live-stock nor hay and grain farms were one-half as numerous as the cotton farms in either of the Southern divisions.

The per cent of dairy, sugar, rice, and fruit farms is very small in both of these divisions. Such farms are very highly developed in some sections, but as yet constitute only a small proportion of all farms in the Southern states. The market garden business of the South, although inconsiderable in comparison with that of the North as indicated by the per cent of vegetable farms for the two sections, is rapidly becoming of importance. A considerable growth may be expected in these special branches of agriculture in the near future, when the land which is especially adapted to the growing of fruit and vegetables has been brought under intensive cultivation and into good railroad communication with the great markets of the country.

The peculiar agricultural conditions that prevail in Hawaii are reflected in the figures for that territory in tables XLV and XLVI. These show that rice farms, June 1, 1900, constituted 21.9 per cent; coffee farms, 22.4 per cent; taro farms, 19.3 per cent; sugar farms, 7.4 per cent; miscellaneous farms, 7.8 per cent; live-stock farms, 8.7 per cent; fruit farms, 5.1 per cent; and vegetable farms, 4.8 per cent of the total number of farms in the territory.

Dairy farms were most numerous in the North Atlantic states, where they constituted 25.8 per cent of all farms, a greater per cent than is shown by any other class except that of miscellaneous farms. The next largest per cent of dairy farms was in the Western division and the smallest in the South Atlantic. These percentages, considered in connection with the number of dairy cows and the per cent of live-stock farms, show that dairying in the North Atlantic states constituted the principal business of a considerable number of farmers, while in the other divisions it was, as a rule, incidental to other and more important sources of farm income.

The geographic distribution of the various groups of farms classified by principal source of income, as shown in tables XLV and XLVI, should be considered in connection with the average area in acres of those farms given in table XLVIII, and with the striking presentation of the location of farms of specified areas given in Plate 17, to which some consideration has already been given.

FARMS OF SPECIFIED PRINCIPAL SOURCES OF INCOME CLASSIFIED BY OTHER CHARACTERISTICS.

The percentages of table XLVII show the relative number of farms of specified principal sources of income in the various groups of farms classified by other characteristics. Tables 2, 3, and 4 give the number of farms in these various groups. On Plates 17 and 18 are graphically shown some of the relations of farms classified by principal source of income, as reported in 1900.

TABLE XLVII.—PER CENT OF THE NUMBER OF FARMS, JUNE 1, 1900, OF FOURTEEN SPECIFIED PRINCIPAL SOURCES OF INCOME, CONTAINED IN DESIGNATED GROUPS OF FARMS CLASSIFIED BY AREA, BY VALUE OF PRODUCTS OF 1899 NOT FED TO LIVE STOCK, BY TENURE, AND BY RACE OF FARMER.

A.—FARMS CLASSIFIED BY AREA IN ACRES.

GROUPS OF FARMS.	Per cent of all farms.	PER CENT OF THE NUMBER OF FARMS OF SPECIFIED PRINCIPAL SOURCE OF INCOME.													
		Hay and grain.	Vegetables.	Fruits.	Live stock.	Dairy produce.	Tobacco.	Cotton.	Rice.	Sugar.	Flowers and plants.	Nursery products.	Taro.	Coffee.	Miscellaneous.
All farms	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Under 3	0.7	0.1	2.9	2.4	0.9	1.5	0.4	0.1	2.2	0.7	61.1	6.0	38.8	9.2	0.8
3 and under 10	4.0	2.0	15.3	13.1	3.6	4.2	5.5	2.4	17.4	4.7	22.5	12.9	32.0	39.1	5.7
10 and under 20	7.1	4.5	15.3	16.8	5.2	5.7	11.6	10.5	10.8	8.6	8.0	15.1	10.7	18.4	7.6
20 and under 50	21.9	14.4	26.8	27.5	16.5	16.5	25.4	39.8	20.7	28.5	5.8	21.1	7.0	13.3	21.6
50 and under 100	23.8	22.3	19.5	19.3	24.6	25.4	24.4	22.3	14.2	24.3	1.8	19.1	7.0	5.8	26.6
100 and under 175	24.8	31.5	14.3	13.2	27.1	29.4	19.8	15.3	14.2	14.0	0.7	14.9	1.8	4.9	24.3
175 and under 260	8.5	11.5	3.2	3.7	10.0	9.8	7.3	4.9	6.9	5.3	0.1	4.7	0.5	3.1	7.3
260 and under 500	6.6	10.4	2.0	2.6	8.0	5.7	4.5	3.3	6.7	5.2	(1)	4.2	0.9	2.5	4.5
500 and under 1,000	1.8	2.5	0.5	1.0	2.4	1.3	1.0	1.0	3.6	3.2	.....	1.6	0.4	1.4	1.2
1,000 and over	0.8	0.8	0.2	0.4	1.7	0.5	0.1	0.4	3.3	5.5	.....	0.4	0.9	2.3	0.4

[1] Less than one-tenth of 1 per cent.

TABLE XLVII.—PER CENT OF THE NUMBER OF FARMS, JUNE 1, 1900, OF FOURTEEN SPECIFIED PRINCIPAL SOURCE OF INCOME, CONTAINED IN DESIGNATED GROUPS OF FARMS CLASSIFIED BY AREA, BY VALUE OF PRODUCTS OF 1899 NOT FED TO LIVE STOCK, BY TENURE, AND BY RACE OF FARMER—Continued.

B.—FARMS CLASSIFIED BY VALUE OF PRODUCTS OF 1899 NOT FED TO LIVE STOCK.

GROUPS OF FARMS.	Per cent of all farms.	PER CENT OF THE NUMBER OF FARMS OF SPECIFIED PRINCIPAL SOURCE OF INCOME.													
		Hay and grain.	Vegetables.	Fruits.	Live stock.	Dairy produce.	Tobacco.	Cotton.	Rice.	Sugar.	Flowers and plants.	Nursery products.	Taro.	Coffee.	Miscellaneous.
$0	0.9	1.0	0.2	1.6	0.5	0.1	0.5	0.9	1.4	0.4	0.4	1.3	.....	5.3	1.9
$1 and under $50	2.9	3.5	6.7	3.4	1.4	1.2	1.3	2.4	9.5	2.3	0.7	0.5	4.3	4.5	5.1
$50 and under $100	5.3	5.2	9.2	5.3	3.8	4.8	3.2	4.7	13.2	3.8	1.7	1.7	10.4	10.9	8.2
$100 and under $250	21.8	15.3	22.3	17.4	20.7	26.6	18.5	27.6	18.3	13.3	6.2	7.8	40.8	29.7	26.5
$250 and under $500	27.9	20.9	22.9	23.7	26.7	23.0	33.7	39.0	15.4	22.5	10.5	11.6	20.2	24.2	29.7
$500 and under $1,000	24.0	28.1	21.1	23.8	25.9	25.0	27.7	20.1	14.2	25.9	18.3	17.8	15.0	18.9	19.9
$1,000 and under $2,500	14.5	22.8	13.8	18.1	17.0	20.6	13.2	4.7	14.2	17.8	32.1	26.1	6.8	8.4	7.8
$2,500 and over	2.7	3.2	3.8	6.7	4.0	4.7	1.9	0.6	13.8	14.0	30.1	33.2	2.5	3.1	0.9

C.—FARMS CLASSIFIED BY TENURE.

Owners	54.9	48.0	60.4	71.7	66.9	68.9	44.6	28.2	44.2	50.6	77.3	68.4	47.8	34.2	66.9
Part owners	7.9	10.7	7.2	6.5	10.3	5.4	5.4	3.4	7.0	8.0	4.6	14.6	7.3	8.4	6.4
Owners and tenants	0.9	0.9	0.7	0.8	1.3	0.7	1.5	0.3	0.4	0.6	0.6	0.4	.....	.....	1.0
Managers	1.0	1.1	1.3	4.5	1.2	1.7	0.6	0.4	2.7	5.7	2.8	3.9	0.5	3.5	0.8
Cash tenants	13.1	10.1	18.9	7.6	7.6	12.5	8.9	29.4	24.2	15.3	13.2	10.0	38.5	49.6	8.7
Share tenants	22.2	29.2	11.5	8.9	12.7	10.8	39.0	38.3	21.5	19.8	1.5	2.7	5.9	4.3	16.2

D.—FARMS CLASSIFIED BY RACE OF FARMER.

White	86.6	95.5	89.1	96.8	97.7	98.5	81.7	50.7	54.0	83.9	99.6	99.6	8.2	35.4	90.9
Negro	13.0	3.9	10.0	2.7	2.0	1.4	18.3	49.1	37.3	14.8	0.3	0.3	0.2	.....	8.8
Indian	0.4	0.6	0.5	0.2	0.3	0.1	(1)	0.2	.....	0.1	.....	.....	.....	.....	0.3
Chinese	(1)	(1)	0.4	0.3	(1)	(1)	(1)	(1)	6.9	0.3	(1)	.....	20.4	8.0	(1)
Japanese	(1)	(1)	(1)	(1)	(1)	(1)	.....	.....	1.5	0.8	0.1	0.1	11.6	36.5	(1)
Hawaiian[2]	(1)	.....	(1)	(1)	(1)	(1)	.....	.....	0.3	0.1	.....	.....	59.6	20.1	(1)

[1] Less than one-tenth of 1 per cent.

[2] Including part Hawaiian and 1 South Sea Islander.

Of the farms of the United States, June 1, 1900, 4,046,280, or 70.5 per cent, contained from 20 to 174 acres; 675,458, or 11.8 per cent, contained less than 20 acres; and 1,017,919, or 17.7 per cent, contained more than 174 acres. For many of the groups of farms classified by principal source of income, the distribution among groups of designated area shows a general similarity with that for all farms.

Of the 1,319,856 hay and grain farms, 68.2 per cent contained from 20 to 174 acres; 6.6 per cent, less than 20 acres; and 25.2 per cent, more than 174 acres. Of the 1,564,714 live-stock farms, 68.2 per cent were in the three groups with areas from 20 to 174 acres; 9.7 per cent contained less than 20 acres; and 22.1 per cent, more than 174 acres. Of the 357,578 dairy farms, 71.3 per cent had areas of from 20 to 174 acres; 11.4 per cent had areas smaller than 20 acres; and 17.3 per cent, larger than 174 acres. The tobacco, cotton, rice, sugar, and miscellaneous farms were all grouped in the same general way, the greatest number in each class being in the groups with areas of from 20 to 174 acres. Of the 106,272 tobacco farms, 69.6 per cent were in these groups, while 17.5 per cent were in the smaller, and 12.9 per cent in the larger groups. Of the 1,071,545 cotton farms, 77.4 per cent were in the groups with areas from 20 to 174 acres; 13.0 per cent were in the smaller groups; and 9.6 per cent, in the larger. Of the 5,717 rice farms, 49.1 per cent contained 20 to 174 acres; 30.4 per cent had less than 20 acres; and 20.5 per cent, more than 174 acres. Of the 7,344 sugar farms, 66.8 per cent had areas of 20 to 174 acres; while 14.0 per cent were smaller than 20 acres; and 19.2 per cent, larger than 174 acres. Of the miscellaneous farms, 72.5 per cent were found in the groups from 20 to 174 acres; 14.1 per cent, in the groups under 20 acres; and 13.4 per cent, in the groups over 174 acres.

The farms devoted to the cultivation of flowers, taro, or coffee as a principal source of income show a radically different grouping by area. Of the florists' establishments, 91.6 per cent had areas of less than 20 acres, and 8.4 per cent had greater areas. Of the farms growing taro, 81.5 per cent had areas of less than 20 acres, and 18.5 per cent had larger areas. Of the coffee farms, 70.8 per cent were farms containing 3 to 49 acres; 9.2 per cent had areas of less than 3 acres; and 20.0 per cent contained more than 50 acres each.

The vegetable farms, fruit farms, and nurseries were distributed among the groups of different areas in a manner intermediate between the two general classes of farms already mentioned. The three leading groups were those with from 10 to 99 acres. The proportion of farms included in these three groups was 61.6 per cent for vegetable farms, 63.6 per cent for fruit farms, and 55.3 per cent for nurseries.

In 1899, as shown by Section B of table XLVII, 66.4 per cent of the farms of the United States had gross incomes of over $249 and less than $2,500. The corresponding percentages for farms classified by princi-

pal source of income were as follows: Hay and grain, 71.8; vegetable, 57.8; fruit, 65.6; live-stock, 69.6; dairy produce, 68.6; tobacco, 74.6; cotton, 63.8; rice, 43.8; sugar, 66.2; flower and plant, 60.9; nursery product, 55.5; taro, 42.0; coffee, 46.5; and miscellaneous, 57.4. Of these classes only florists' establishments and nurseries show relatively large numbers of farms with incomes of over $2,500 each. Of the former, 30.1 per cent had incomes in excess of that amount, and of the latter, 33.2 per cent. Of the farms not included in the foregoing percentages as having incomes of more than $249 and less than $2,500, by far the greater number had incomes of less than $250.

Owners operated 54.9 per cent of all the farms in the country; part owners, 7.9 per cent; owners and tenants, 0.9 per cent; managers, 1.0 per cent; cash tenants, 13.1 per cent; and share tenants, 22.2 per cent. Of the hay and grain farms, owners operated 48.0 per cent; part owners, 10.7 per cent; owners and tenants, 0.9 per cent; managers, 1.1 per cent; cash tenants, 10.1 per cent; and share tenants, 29.2 per cent. Of these percentages those for share tenants, managers, and part owners are larger than the per cent for all farms, while the percentages for owners and tenants are the same, and those for owners and for cash tenants are smaller. Hence, it may be stated that hay and grain farms are to be operated by part owners, managers, and share tenants in greater proportion than is the case with all farms taken together. The percentages of table XLVII indicate, also, that vegetable farms are to be operated by owners, managers, and cash tenants; fruit farms, by owners and managers; live-stock farms, by owners and managers; dairy farms, by owners and managers; tobacco farms, by share tenants; cotton and rice farms, by cash and share tenants; sugar farms, by managers and cash tenants; florists' establishments, by owners, managers, and cash tenants; nurseries, by owners, part owners, and managers; taro and coffee farms, by cash tenants; and miscellaneous farms, by owners. On Plate 17 will be found a diagram illustrating the above statements.

Corresponding relations, shown for farms operated by farmers of different races or colors, lead to the deduction that in 1900 white farmers operated more than their proportional number of hay and grain farms, vegetable farms, fruit farms, live-stock farms, dairy farms, florists' establishments, nurseries, and miscellaneous farms, and less than their proportion of tobacco, cotton, rice, sugar, taro, and coffee farms. The negroes operated more than their proportional number of tobacco, cotton, rice, and sugar farms, and less than their share of other classes of farms. The classes of farms of which the negroes operated more than their proportion were those most numerous in the South, where the great majority of negroes reside. The percentages, therefore, show the effect of locality upon the distribution of farms, as well as the aptitude of each race for certain branches of agriculture.

The Indians reported more than their proportional number of hay and grain and vegetable farms, and less than their share of other classes. In many parts of the West they were engaged in raising the staple crops of these two classes of farms and selling them to their white neighbors.

The Chinese operated more than their proportional share of vegetable, fruit, rice, sugar, taro, and coffee farms, the first two in all parts of the country in which they were engaged in agriculture, and the last four in the Hawaiian Islands only.

The Japanese, Hawaiians, and part Hawaiians each operated more than their share of the rice, sugar, taro, and coffee farms, while the Japanese operated more than their share of florists' establishments and nurseries.

AREAS OF FARMS OF SPECIFIED PRINCIPAL SOURCES OF INCOME.

Table 16 gives, by states and territories, the number of farms of specified principal sources of income, the acres of all land and the acres of improved land contained therein, the value of farm property and products, and expenditures for labor and fertilizers. Tables XLVIII to LIV, inclusive, contain brief summaries of the leading facts presented in Table 16. Table XLVIII gives the principal facts concerning the acres of all land and the acres of improved land, with percentages and averages.

TABLE XLVIII.—ACRES OF ALL LAND, AND ACRES OF IMPROVED LAND, JUNE 1, 1900, FOR FARMS CLASSIFIED BY PRINCIPAL SOURCE OF INCOME.

FARMS CLASSIFIED BY PRINCIPAL SOURCE OF INCOME.	Total.	Improved.	Per cent improved.	AVERAGE.	
				All land.	Improved land.
The United States	841,201,546	414,793,191	49.3	146.6	72.3
Hay and grain	210,242,783	146,588,747	69.7	159.3	111.1
Vegetables	10,156,679	5,274,218	51.9	65.1	33.8
Fruits	6,149,584	3,417,074	55.6	74.8	41.6
Live stock	355,009,476	134,748,135	38.0	226.9	86.1
Dairy produce	43,283,971	22,616,227	52.3	121.0	63.2
Tobacco	9,574,160	5,628,277	58.8	90.1	53.0
Cotton	89,586,680	45,580,533	50.9	83.6	42.5
Rice	1,087,668	462,676	42.5	190.3	80.9
Sugar	2,668,880	1,032,117	38.7	363.4	140.5
Flowers and plants	42,662	34,704	81.3	6.9	5.6
Nursery products	165,780	137,459	82.9	81.7	67.7
Taro	18,922	2,980	15.7	42.9	6.8
Coffee	70,218	14,123	20.1	137.1	27.6
Miscellaneous	113,144,083	49,255,921	43.5	106.8	46.5

The improved farm land of the United States, June 1, 1900, constituted 49.3 per cent of the farm acreage. The per cent of improved land in hay and grain farms was 69.7; vegetable farms, 51.9; fruit farms, 55.6; dairy farms, 52.3; tobacco farms, 58.8; cotton farms, 50.9; florists' establishments, 81.3; and nurseries, 82.9. These farms, therefore, may be said to be more highly improved than the average, while live-stock farms with 38.0 per cent of their land improved, rice farms with 42.5 per cent, sugar farms with 38.7 per cent, taro farms with 15.7 per cent, coffee farms with 20.1 per cent,

and miscellaneous farms with 43.5 per cent, are less highly improved than the average.

The average size of all farms in 1900 was 146.6 acres. Farms devoted especially to raising vegetables, fruits, tobacco, cotton, flowers and plants, taro, and nursery products, all averaged less than 100 acres. The distribution of farms of less than 100 acres, where present in important numbers, is shown upon Plate 3. Sugar farms contained an average of 363.4 acres, but were too few in number to affect the average size of farms except, possibly, in Hawaii. The same is true of rice and coffee farms. The average areas of live-stock farms and of hay and grain farms were much larger in the Western division than those for the United States, being 777.1 acres and 340.0 acres, respectively. The averages for these two classes of farms in North and South Dakota, and in Kansas and Nebraska, were about the same. In these four states, and in the Western division, these are the farms that cause the large average areas per farm shown on the maps which indicate the distribution of farms by area.

PROPERTY OF FARMS OF SPECIFIED PRINCIPAL SOURCES OF INCOME.

Table XLIX presents the total value of all farm property and also the average value per farm and per acre of all farm land, for groups of farms classified by principal source of income.

TABLE XLIX.—TOTAL VALUE, AND AVERAGE VALUES, PER FARM AND PER ACRE, JUNE 1, 1900, OF ALL FARM PROPERTY, FOR FARMS CLASSIFIED BY PRINCIPAL SOURCE OF INCOME.

FARMS CLASSIFIED BY PRINCIPAL SOURCE OF INCOME.	Number of farms.	VALUE OF ALL FARM PROPERTY.		
		Total.	Average.	
			Per farm.	Per acre.
All farms	5,739,657	$20,514,001,838	$3,574	$24.39
Hay and grain	1,319,856	6,379,548,543	4,834	30.34
Vegetables	155,898	546,921,965	3,508	53.85
Fruits	82,176	439,933,714	5,354	71.54
Live stock	1,564,714	7,505,284,273	4,797	21.14
Dairy produce	357,578	1,693,467,302	4,736	39.12
Tobacco	106,272	215,485,418	2,028	22.51
Cotton	1,071,545	1,107,334,600	1,033	12.36
Rice	5,717	17,834,943	3,120	16.40
Sugar	7,344	150,426,234	20,483	56.36
Flowers and plants	6,159	52,462,419	8,518	1,229.72
Nursery products	2,029	19,145,981	9,436	115.49
Taro	441	562,499	1,276	29.73
Coffee	512	1,932,915	3,775	27.58
Miscellaneous	1,059,416	2,383,661,032	2,250	21.07

The average value per farm of all farm property was $3,574. For the following groups of farms the averages were greater than for all farms: Hay and grain, fruit, live-stock, dairy, sugar, florists' establishments, nurseries, and coffee farms. The following groups had averages smaller than that for all farms: Vegetable, tobacco, cotton, rice, taro, and miscellaneous farms.

The per cent of all farms operated by owners, part owners, owners and tenants, and managers, comprising the general class of owners, was 64.7. The corresponding percentages for fruit, live-stock, dairy, and sugar farms, and for florists' establishments, and nurseries were as follows: 83.5, 80.7, 76.7, 64.9, 85.3, and 87.3, respectively. For tobacco, cotton, rice, and taro farms, the percentages were 52.1, 32.3, 54.3, and 55.6. In these ten groups the relative number of farms of different tenures agrees fully with the deductions made from table XXXVII, namely, that in groups of farms with large average values the per cent of farms operated by owners was greater than in groups of farms of smaller average values and that the opposite was true of tenant-operated farms.

Four classes of farms for which the average values and percentages of farms operated by owners and tenants do not fully conform to the foregoing deduction are hay and grain, vegetable, coffee, and miscellaneous farms. The first and third each show a greater per cent of tenant-operated farms than might be expected from their relatively high values, and the fourth, a greater relative number of farms operated by owners than is consistent with its comparatively low average value. The variations balance one another and leave the relation between the averages for farms of different areas and tenures as stated in connection with the discussion of table XXXVII. The explanation of the exceptions furnished by hay and grain and vegetable farms will be presented in connection with the discussion of table LVII.

Table L gives, for each of the groups of farms classified by principal source of income, the per cent of the total value of all farm property represented by each of the four specified forms thereof.

TABLE L.—PER CENT OF THE VALUE OF ALL FARM PROPERTY IN FOUR SPECIFIED FORMS THEREOF, FOR FARMS CLASSIFIED BY PRINCIPAL SOURCE OF INCOME.

FARMS CLASSIFIED BY PRINCIPAL SOURCE OF INCOME.	Farm land (exclusive of buildings).	Buildings.	Implements and machinery.	Live stock.
All farms	63.9	17.4	3.7	15.0
Hay and grain	72.3	13.8	3.4	10.5
Vegetables	66.3	22.8	3.9	7.0
Fruits	72.4	19.6	3.3	4.7
Live stock	59.9	16.0	3.1	21.0
Dairy produce	56.4	25.1	4.2	14.3
Tobacco	59.8	24.8	3.8	11.0
Cotton	63.2	15.4	4.3	17.1
Rice	70.7	12.4	6.8	10.1
Sugar	62.6	10.3	22.4	4.7
Flowers and plants	53.4	43.3	2.6	0.7
Nursery products	72.5	22.3	2.8	2.4
Taro	75.9	14.5	1.2	8.4
Coffee	81.7	12.4	1.7	4.2
Miscellaneous	58.5	24.0	4.5	13.0

Of all the groups of farms classified by principal source of income, florists' establishments had the largest per cent (43.3) of value of farm property in buildings. Of the other groups the following had the highest percentages: Dairy farms, 25.1; tobacco farms, 24.8; miscellaneous farms, 24.0; vegetable farms, 22.8; and

nurseries, 22.3. The lowest percentages were those for sugar farms, 10.3; and coffee and rice farms, 12.4 each. The expensive machinery used in the sugarhouses of Hawaii and Louisiana explains the high per cent (22.4) for the value of implements and machinery on sugar farms. The largest corresponding per cent for any other group was that for rice farms, 6.8; and the smallest for taro farms, 1.2, and coffee farms, 1.7.

The largest per cent of farm property in live stock was reported by live-stock, dairy, cotton, and miscellaneous farms. The percentages of table L should be studied in connection with the figures of the next three tables.

Table LI presents, for farms classified by principal source of income, the value of farm lands and buildings, with the per cent of the total value in buildings.

TABLE LI.—VALUE OF FARM LAND AND BUILDINGS, JUNE 1, 1900, WITH PERCENTAGES, FOR FARMS CLASSIFIED BY PRINCIPAL SOURCE OF INCOME.

FARMS CLASSIFIED BY PRINCIPAL SOURCE OF INCOME.	Total.	Land with improvements (except buildings).	Buildings.	Per cent in buildings.
Total	$16,674,690,247	$13,114,492,056	$3,560,198,191	21.4
Hay and grain	5,493,952,551	4,610,589,923	883,362,628	16.1
Vegetables	487,323,206	362,459,174	124,864,032	25.6
Fruits	404,946,193	318,653,083	86,293,110	21.3
Live stock	5,691,757,229	4,493,003,548	1,198,753,681	21.1
Dairy produce	1,379,946,545	954,389,210	425,557,335	30.8
Tobacco	182,322,880	128,950,920	53,371,960	29.3
Cotton	870,375,478	700,273,631	170,101,847	19.5
Rice	14,811,760	12,604,570	2,207,190	14.9
Sugar	109,748,959	94,218,164	15,530,795	14.2
Flowers and plants	50,708,671	28,024,715	22,683,956	44.7
Nursery products	18,144,073	13,880,820	4,263,253	23.5
Taro	508,590	426,860	81,730	16.1
Coffee	1,818,930	1,578,710	240,220	13.2
Miscellaneous	1,968,325,182	1,395,438,728	572,886,454	29.1

The percentages for buildings in table LI present the same general variations as are shown in table L. They are largest for florists' establishments, dairy, tobacco, and vegetable farms, and lowest for coffee and rice farms.

BUILDINGS, IMPLEMENTS AND MACHINERY, AND LIVE STOCK, OF FARMS OF SPECIFIED PRINCIPAL SOURCES OF INCOME.

Table LII gives the number of farms in the various groups classified by principal source of income, the number and percentage of those with buildings, and the average value of the land and buildings.

TABLE LII.—NUMBER OF FARMS, AND NUMBER AND PER CENT OF FARMS WITH BUILDINGS, WITH AVERAGE VALUES OF LAND AND BUILDINGS, JUNE 1, 1900, FOR FARMS CLASSIFIED BY PRINCIPAL SOURCE OF INCOME.

FARMS CLASSIFIED BY PRINCIPAL SOURCE OF INCOME.	NUMBER OF FARMS.			AVERAGE VALUE OF—			
				Land.		Buildings.	
	Total.	With buildings.	Per cent with buildings.	Per farm.	Per acre.	Per farm.	Per farm with buildings.
Total	5,739,657	5,537,731	96.5	$2,285	$15.59	$620	$643
Hay and grain	1,319,856	1,242,904	94.2	3,493	21.93	669	711
Vegetables	155,898	149,886	96.1	2,325	35.69	801	833
Fruits	82,176	78,297	95.3	3,878	51.82	1,050	1,102
Live stock	1,564,714	1,536,241	98.2	2,871	12.66	766	780
Dairy produce	357,578	351,747	98.4	2,669	22.05	1,190	1,210
Tobacco	106,272	102,194	96.2	1,214	13.47	502	522
Cotton	1,071,545	1,021,794	95.4	653	7.82	159	166
Rice	5,717	5,412	94.7	2,205	11.59	386	408
Sugar	7,344	6,859	93.4	12,829	35.30	2,115	2,264
Flowers and plants	6,159	6,159	100.0	4,550	656.90	3,683	3,683
Nursery products	2,029	2,020	99.6	6,841	83.73	2,101	2,111
Taro	441	348	78.9	968	22.56	186	235
Coffee	512	487	95.1	3,083	22.48	469	493
Miscellaneous	1,059,416	1,033,383	97.5	1,317	12.33	541	554

The only group showing buildings for every farm was that of florists' establishments. The group with the next largest per cent of buildings was nurseries, with 99.6. The lowest per cent, 78.9, was that for taro farms, and the next lowest, 93.4, was that for sugar farms. All the larger sugar plantations had buildings, the only ones without them being tenant-operated farms, or tracts of land on the larger plantations used for growing cane to be sold to sugar refiners.

The average value of all farm land was $2,285 per farm, and $15.59 per acre. This average per farm was exceeded by hay and grain farms, vegetable farms, fruit farms, live-stock farms, dairy farms, sugar farms, florists' establishments, nurseries, and coffee farms. The general average per acre was exceeded by hay and grain, vegetable, fruit, dairy, sugar, flower and plant, nursery, taro, and coffee farms.

The average value of buildings per farm reporting the same was greatest for the florists' establishments, where it was $3,683. The next largest averages were those for sugar farms, nurseries, dairy farms, and fruit farms, their averages being $2,264, $2,111, $1,210, and $1,102, respectively. The lowest averages were for cotton and taro farms, $166 and $235, respectively.

Table LIII shows, for farms classified by principal source of income, the total and average value, per farm and per acre, of implements and machinery on farms, June 1, 1900.

TABLE LIII.—TOTAL VALUE, AND AVERAGE VALUE PER FARM AND PER ACRE, OF IMPLEMENTS AND MACHINERY, JUNE 1, 1900, ON FARMS CLASSIFIED BY PRINCIPAL SOURCE OF INCOME.

FARMS CLASSIFIED BY PRINCIPAL SOURCE OF INCOME.	Number of farms.	VALUE OF IMPLEMENTS AND MACHINERY.		
		Total.	Average.	
			Per farm.	Per acre.
Total	5,739,657	$761,261,550	$133	$0.90
Hay and grain	1,319,856	218,536,165	166	1.04
Vegetables	155,898	21,567,050	138	2.12
Fruits	82,176	14,373,220	175	2.34
Live stock	1,564,714	235,508,154	151	0.66
Dairy produce	357,578	71,916,241	201	1.66
Tobacco	106,272	8,150,980	77	0.85
Cotton	1,071,545	47,874,635	45	0.53
Rice	5,717	1,212,190	212	1.11
Sugar	7,344	33,651,170	4,582	12.61
Flowers and plants	6,159	1,366,887	222	32.04
Nursery products	2,029	539,895	266	3.26
Taro	441	6,620	15	0.35
Coffee	512	32,310	63	0.46
Miscellaneous	1,059,416	106,526,633	101	0.94

The most noteworthy averages were those for sugar farms, $4,582 per farm and $12.61 per acre; and they are explained by the costly machinery in the few great sugarhouses. The next largest average per farm was for nurseries, $266; and the lowest averages were for taro and cotton farms, $15 and $45, respectively. The highest average per acre, $32.04, was for florists' establishments. This was nearly three times that for sugar farms and almost ten times that for nurseries, the two next largest. The lowest averages per acre were those for taro and coffee farms, $0.35 and $0.46 per acre, respectively.

In table LIV are given, for farms classified by principal source of income, the total value of live stock and the average value per farm and per acre.

TABLE LIV.—TOTAL VALUE, AND AVERAGE VALUE PER FARM AND PER ACRE, OF LIVE STOCK, JUNE 1, 1900, ON FARMS CLASSIFIED BY PRINCIPAL SOURCE OF INCOME.

FARMS CLASSIFIED BY PRINCIPAL SOURCE OF INCOME.	Number of farms.	VALUE OF ALL LIVE STOCK.		
		Total.	Average.	
			Per farm.	Per acre.
All farms	5,739,657	$3,078,050,041	$536	$3.66
Hay and grain	1,319,856	667,059,827	506	3.17
Vegetables	155,898	38,031,709	244	3.74
Fruits	82,176	20,614,301	251	3.35
Live stock	1,564,714	1,578,018,890	1,009	4.45
Dairy produce	357,578	241,604,516	676	5.58
Tobacco	106,272	25,011,558	235	2.61
Cotton	1,071,545	189,084,487	176	2.11
Rice	5,717	1,810,993	317	1.67
Sugar	7,344	7,026,105	957	2.63
Flowers and plants	6,159	386,861	63	9.07
Nursery products	2,029	462,013	228	2.79
Taro	441	47,289	107	2.50
Coffee	512	81,675	160	1.16
Miscellaneous	1,059,416	308,809,817	291	2.73

The average value of live stock per farm in the United States, June 1, 1900, was $536. This average was exceeded by three groups only—live-stock, sugar, and dairy farms—with averages of $1,009, $957, and $676, respectively. The smallest average was that for florists' establishments, $63. The three classes of farms with the greatest averages per acre were the florists' establishments, dairy farms, and live-stock farms, their averages being $9.07, $5.58, and $4.45. The three with smallest averages per acre were the coffee farms, rice farms, and cotton farms, respectively.

FARMS CLASSIFIED BY REPORTED VALUE OF PRODUCTS OF 1899 NOT FED TO LIVE STOCK.

CHARACTER OF FARMS WITH NO REPORTED INCOME.

For the proper comprehension of the tables giving the statistics of farms classified by value of products of 1899 not fed to live stock, or, as the classification is often called in this report, farms classified by gross income of 1899, special mention should be made of farms without income and of those with very small incomes, of which there are several distinct classes:

1. Farms that in 1899 suffered from some calamity, as frost, drought, hail, or flood. Most of the schedules reporting such farms had notations upon them, in accordance with instructions to the enumerators, calling attention to the cause of absence of income. The same factors were influential also in reducing the incomes of many other farms below the normal, and such farms appear in the groups with incomes of less than $250.

2. Many farms without incomes, or with small incomes, were those of homesteaders in the West. Practically the only crop harvested the first year of the settlement of these homesteads was the hay cut from the native grasses. The larger portion of this hay was fed to live stock on the farms where it was cut, and, although this product was reported, there was no income secured therefrom by the farmer. Hence the classification of the farm as one without income; but the phrase "without income" does not always mean without products.

3. Other farms that appear in the tables as being without income are those concerning which the enumerators furnished very imperfect reports. The schedules for these farms, of which there were many, usually bore the notation that the farm had changed hands shortly prior to June 1, 1900, the date of enumeration, and that as a result, the occupant at the time of enumeration could give no information relative to the crops of the preceding year. Of the same general character were the live-stock farms using the public domain, for which very accurate reports were obtained of the animals on hand, but no reports of animals sold, thus leaving the farms with no apparent income. Both

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TABLE LVII.—PER CENT OF THE NUMBER OF FARMS, JUNE 1, 1900, OF EIGHT SPECIFIED VALUES OF PRODUCTS OF 1899 NOT FED TO LIVE STOCK, CONTAINED IN DESIGNATED GROUPS OF FARMS CLASSIFIED BY AREA, PRINCIPAL SOURCE OF INCOME, TENURE, AND RACE OF FARMER—Continued.

B.—FARMS CLASSIFIED BY PRINCIPAL SOURCE OF INCOME.

GROUPS OF FARMS.	Per cent of all farms.	PER CENT OF THE NUMBER OF FARMS OF SPECIFIED VALUES OF PRODUCTS OF 1899, NOT FED TO LIVE STOCK.							
		$0.	$1 and under $50.	$50 and under $100.	$100 and under $250.	$250 and under $500.	$500 and under $1,000.	$1,000 and under $2,500.	$2,500 and over.
Hay and grain	23.0	24.7	27.7	22.3	16.1	17.2	26.9	36.3	27.4
Vegetables	2.7	0.5	6.2	4.7	2.8	2.2	2.4	2.6	3.8
Fruits	1.4	2.5	1.7	1.4	1.1	1.2	1.4	1.8	3.6
Live stock	27.3	15.3	13.0	19.6	26.0	26.1	29.4	32.0	40.0
Dairy produce	6.2	0.8	2.6	5.7	5.9	5.1	6.5	8.9	11.0
Tobacco	1.9	1.0	0.8	1.1	1.6	2.2	2.1	1.7	1.3
Cotton	18.7	18.2	15.4	16.3	23.7	26.1	15.7	6.1	4.1
Rice	0.1	0.1	0.3	0.3	0.1	0.1	0.1	0.1	0.5
Sugar	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.7
Flowers and plants	0.1	0.1	(1)	(1)	(1)	0.1	0.1	0.2	1.2
Nursery products	(1)	(1)	(1)	(1)	(1)	(1)	(1)	0.1	0.4
Miscellaneous[2]	18.5	36.7	32.2	28.5	22.6	19.6	15.3	10.0	6.0
C.—FARMS CLASSIFIED BY TENURE.									
Owners	54.9	47.9	47.0	51.6	53.1	55.4	58.3	54.9	50.6
Part owners	7.9	2.6	3.1	4.4	5.3	6.6	9.1	13.0	17.0
Owners and tenants	0.9	0.3	0.3	0.3	0.5	0.9	1.3	1.4	1.2
Managers	1.0	3.6	0.9	0.7	0.6	0.6	0.9	1.6	6.7
Cash tenants	13.1	16.2	19.2	16.6	14.6	13.5	11.2	10.9	11.3
Share tenants	22.2	29.4	29.5	26.4	25.9	23.0	19.2	18.2	13.2
D.—FARMS CLASSIFIED BY RACE OF FARMER.									
White	86.6	77.3	67.1	75.0	79.7	83.9	92.9	98.1	99.0
Negro	13.0	19.4	30.4	23.9	19.9	15.9	6.9	1.7	0.5
Indian	0.4	3.2	2.5	1.1	0.4	0.2	0.1	0.1	0.2
Chinese	(1)	0.1	(1)	(1)	(1)	(1)	0.1	0.1	0.3
Japanese	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Hawaiian[3]	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)

[1] Less than one-tenth of 1 per cent.
[2] Includes 411 taro farms and 512 coffee farms in Hawaii.
[3] Including part Hawaiian and 1 South Sea Islander.

The figures of tables XXXVII and LVII illustrate in a different manner the obvious fact that under ordinary circumstances the size of the farm determines the amount of the farm income. The most noteworthy exception to this rule has already been given in the discussion of table XXXVII. From table LVII it is seen that the farms with less than 20 acres constituted 11.8 per cent of all. The three groups under 20 acres included 28.7 per cent of all farms with no reported incomes; 46.4 per cent of those with incomes of less than $50; 41.6 per cent of those with incomes of $50 and less than $100; 22.6 per cent of those with incomes of $100 and less than $250; 7.6 per cent of those with incomes of $250 to $500; 2.3 per cent of those with incomes of $500 to $1,000; 1.6 per cent of those with incomes of $1,000 and less than $2,500; and 3.3 per cent of those with incomes of over $2,500.

The farms contained in the three groups with largest areas constituted 9.2 per cent of all farms, and with respect to incomes, form a series the reverse of the foregoing. They contained 8.5 per cent of all farms with no reported income; 2.3 per cent of those with incomes of less than $50; 2.1 per cent of those with incomes of $50 and less than $100; 2.3 per cent of those with incomes of $100 and less than $250; 4.3 per cent of those with incomes of $250 and less than $500; 9.2 per cent of those with incomes of $500 and less than $1,000; 23.6 per cent of those with incomes of $1,000 and less than $2,500; and 59.5 per cent of those with incomes of over $2,500.

It will be found that the percentages given in table LVII for groups of farms classified by principal source of income throw some light upon the exceptional percentages of table XLVII and upon the averages of table XLIX, to which attention has already been called.

Live-stock, dairy, and sugar farms, florists' establishments, and nurseries have percentages which arrange themselves in more or less regular series, with the smallest in the subgroup with least incomes, and the largest in the four subgroups with greatest incomes, as was the case for farms classified by area, showing that, in these classes, the larger farms are the more numerous.

The percentages for tobacco and cotton farms reach a maximum in the subgroup with incomes of $250 to $500, and form a diminishing series in either direction to the groups with smallest and largest incomes. These farms were generally cultivated by negro tenants having from 20 to 50 acres each, from which they ordinarily secured incomes of from $250 to $500. Hence the arrangement of the percentages for farms making the cultivation of cotton and tobacco their principal

source of income, as shown in tables XXXVII, XLVII, and LVII. The high per cent of cotton farms with no reported income is due, as has already been stated, to the faulty method adopted by some enumerators of reporting, upon the farm schedules of the large plantation owners, all the crops grown by the negro tenants.

The percentages for miscellaneous farms in table LVII form a descending series, with the maximum percentages for farms with little or no income. Of farms classified by principal source of income, miscellaneous farms included the greatest proportion of those imperfectly reported, of those suffering from abnormal conditions, such as floods and drought, and also of the farms of homesteaders in the West. These farms, therefore, constitute an exceptionally large proportion of the subgroup with no incomes and of the subgroup with small incomes. The group of miscellaneous farms is that in which were placed all farms, of which the principal source of income was in doubt; and there was doubt in the case of nearly all farms with very small incomes.

Hay and grain, fruit, vegetable, and rice farms have the minimum percentages in some one of the groups with medium incomes; and hay and grain, and rice farms have the maximum percentages in the groups with large areas and incomes; while fruit and vegetable farms show their maximum percentages for the smaller farms. These four classes contain considerable numbers of farms very different in character and method of operation, and the percentages representing the various types appear in different places in table LVII, causing unexpected irregularities.

In the Southern states rice is grown on large plantations, and in Hawaii on very small ones. In the former the rice grower seldom has a small income, and in the latter he rarely reports a large one. The largest proportional number of Hawaiian rice farms are found in the group with incomes less than $100, while the rice farms of the South are most numerous in the group with incomes over $2,500.

The farms deriving their principal income from hay and grain are also of two kinds; those upon which cereals are grown for sale, and those upon which hay is made the principal source of income. The growing of grain, as a principal source of income, is ordinarily conducted on farms of considerable area and value, and, as with all such farms, the per cent operated by owners or by salaried managers is largest in the subgroup with greatest area, value, and income. The raising of hay, as a principal source of income, is sometimes, though not commonly, carried on under the same conditions. But farms reporting hay and grain as their principal source of income were, as a rule, either small, or under a very low state of cultivation. The semi-abandoned farms of the East were nearly all hay and grain farms, and were more frequently operated by tenants than by owners, the relation of the tenant to such farms being mainly the work of harvesting the hay, with some slight attention to fences. Therefore, in the classification "hay and grain," the grain farms are largely in the subgroups with greatest incomes, while the hay farms are mostly at the other end of the series.

This fact explains the anomaly to which attention was called in the discussion of tables XLVII and XLIX—that the hay and grain farms have both an average value and a gross income greater than those of all farms, although including a greater per cent of farms operated by tenants than by owners. The greater average area and value of the grain farms operated by owners raises the average value for the entire group of "hay and grain" farms; while the hay farms, some of which are valuable, but in a low state of cultivation, and which are more generally operated by tenants than by owners, increase the per cent of tenant-operated farms for the entire group of "hay and grain" farms. These facts are shown in tables XLVII and XLIX.

Fruit farms with no incomes, or with small incomes, represent, for the most part, farms on which trees or vines had been set out, but which had not come into full bearing in 1899. These farms, like those with trees in full bearing and reporting large incomes, have a value above the average, and a higher per cent of them is owned than of farms of other classes, as has been shown in the discussion of other tables. The influence of the two classes of fruit farms, those with trees in full bearing, and those with trees recently set out, is shown in table LVII.

The raising of vegetables, as a business, usually calls for considerable capital and yields large incomes, although not always involving the use of large areas of land. Not all farms classed by the census as vegetable farms are strictly of that character. A considerable number of the farms so reported are those of aged farmers, who had relinquished the management of large farms and removed to smaller ones, which they usually owned. The principal product of these smaller farms is garden truck, of which the farmer himself generally consumed the greater portion, although occasionally selling considerable quantities. These farms of small value and limited income account for the relatively large per cent of vegetable farms in groups with small incomes, which is shown in table LVII. The market gardeners, making a business of raising vegetables, operated the greater proportion of such farms having large incomes. It is the presence of the numerous small farms above described that gives to vegetable farms in table XLIX an average value below that for all farms and at the same time makes the per cent of owned farms higher than that for all farms.

The percentages in table LVII for farms classified by tenure furnish another illustration of the principles shown in table XXXVII, for farms classified by area. Those principles, as they relate to farms classified by tenure, may be stated as follows:

The largest relative number of farms operated by owners, or for them by salaried managers, is included

in the groups with largest average incomes, and the smallest relative number in those with smallest average incomes. For farms with incomes between these extremes the percentages operated by owners, or for them by salaried managers, make a continuous and fairly constant series, rising from those with the smallest incomes to those with the highest. The percentages for farms operated by tenants reverse this arrangement, being least for farms with largest incomes and greater for those with smallest incomes. The special characteristics with respect to acreage pointed out for farms of part owners in the discussion of table XXXVII are shown, in a general way, for incomes as given in table LVII.

The amount of income for farms classified by race of farmer varies in the same manner as noted in the discussion of table XXXIII for farms of different areas.

ACREAGE AND VALUE OF FARMS OF SPECIFIED INCOMES.

Table LVIII gives the number of acres of all land and of improved land, with percentages and averages, for farms classified by specified amounts of income, in 1899.

TABLE LVIII.—ACRES OF ALL LAND AND OF IMPROVED LAND, JUNE 1, 1900, IN GROUPS OF FARMS CLASSIFIED BY VALUE OF PRODUCTS OF 1899 NOT FED TO LIVE STOCK.

FARMS CLASSIFIED BY VALUE OF PRODUCTS OF 1899 NOT FED TO LIVE STOCK.	Total.	Improved.	Per cent improved.	AVERAGE.	
				Total.	Improved land.
Total	841,201,546	414,793,191	49.3	146.6	72.3
$0	15,124,438	1,782,570	11.8	283.2	33.4
$1 and under $50	10,443,157	3,045,005	29.2	62.3	18.2
$50 and under $100	17,896,593	6,107,062	34.1	58.6	20.0
$100 and under $250	84,690,963	36,403,521	43.0	67.9	29.2
$250 and under $500	152,187,097	77,185,608	50.7	94.9	48.2
$500 and under $1,000	198,272,685	115,774,953	58.4	143.8	84.0
$1,000 and under $2,000	194,942,139	124,820,466	64.0	235.0	150.5
$2,500 and over	167,644,474	49,674,606	29.6	1,087.8	322.3

The percentages of improved land in farms with different incomes form an ascending series from those with no income to those with incomes of from $1,000 to $2,500. The small percentage for farms with no income reflects the presence of homesteaders with no improved land, of live-stock farms with little improved land, and of farms from which imperfect reports of animals sold were received. The low percentage for the farms with incomes of $2,500 and over is caused by the large cattle farms or ranches of the West, which have large incomes but small areas of improved land. The regularity of the series of percentages calls attention to the fact that the character of the agricultural operations on farms is a most important factor in determining farm income.

The smallest average area was that for farms with incomes ranging from $50 to $99, while the average area of those with no income was larger than that of any group except that of farms with incomes of $2,500 and over. In considering the area of farms with no income, attention is called to their peculiar character, mention of which has heretofore been made. (See Plate 18, which illustrates all the preceding statements relating to amount of farm income.)

Table LIX gives the number of farms of eight specified amounts of income in 1899, together with the total value of farm property and the average value of such property per farm and per acre.

TABLE LIX.—TOTAL VALUE, AND AVERAGE VALUE PER FARM AND PER ACRE, OF ALL FARM PROPERTY, JUNE 1, 1900, ON FARMS CLASSIFIED BY VALUE OF PRODUCTS OF 1899 NOT FED TO LIVE STOCK.

FARMS CLASSIFIED BY VALUE OF PRODUCTS OF 1899 NOT FED TO LIVE STOCK.	Number of farms.	VALUE OF ALL FARM PROPERTY.		
		Total.	Average.	
			Per farm.	Per acre.
All farms	5,739,657	$20,514,001,838	$3,574	$24.39
$0	53,406	134,795,015	2,524	8.91
$1 and under $50	167,569	125,744,400	750	12.04
$50 and under $100	305,590	248,263,105	812	13.87
$100 and under $250	1,247,731	1,358,892,735	1,089	16.05
$250 and under $500	1,602,854	3,004,335,861	1,874	19.74
$500 and under $1,000	1,378,944	5,356,449,535	3,884	27.02
$1,000 and under $2,500	829,443	6,828,821,333	8,233	35.03
$2,500 and over	154,120	3,456,699,854	22,429	20.62

The average value per farm was lowest for farms with incomes under $50, and highest for those with incomes of $2,500 and over. The comparatively high average value of farms with no income emphasizes what has already been said concerning the character of farms of this class. The average value per acre was lowest for farms with no reported income, increasing steadily to farms with incomes of $1,000 to $2,499, but again falling off for farms with incomes of $2,500 and over.

Table LX gives, for each of the groups of farms classified by income, the per cent of the total value of all farm property in each of the four specified forms thereof.

TABLE LX.—PER CENT OF THE VALUE OF ALL FARM PROPERTY IN SPECIFIED FORMS THEREOF, JUNE 1, 1900, ON FARMS CLASSIFIED BY VALUE OF PRODUCTS OF 1899 NOT FED TO LIVE STOCK.

FARMS CLASSIFIED BY VALUE OF PRODUCTS OF 1899 NOT FED TO LIVE STOCK	Farm land exclusive of buildings.	Buildings.	Implements and machinery.	Live stock.
All farms	63.9	17.4	3.7	15.0
$0	56.7	7.9	2.1	33.3
$1 and under $50	61.9	20.1	3.1	14.8
$50 and under $100	59.1	23.0	3.5	14.5
$100 and under $250	58.2	22.6	3.9	15.3
$250 and under $500	59.8	20.8	4.2	15.2
$500 and under $1,000	63.2	18.9	4.0	13.9
$1,000 and under $2,500	66.9	16.4	3.4	13.2
$2,500 and over	65.5	11.7	3.5	19.3

The land, exclusive of buildings, constituted 63.9 per cent of the value of all farms; live stock, 15.0 per cent; and buildings, 17.4 per cent. Of the value of farms with no income, land constituted 56.7 per cent; live stock, 33.3 per cent; and buildings, 7.9 per cent—thus calling attention in another way to the exceptional character of these farms. The value of live stock on the farms with largest income constituted a large per cent, 19.3, and that of buildings a low one, 11.7. The percentages of the value of buildings and live stock were the largest for farms with incomes of $50 to $499, except for those of no income; and the percentages for land were lower than for farms with larger and smaller incomes. On farms with incomes of $500 and over, the percentages for live stock and buildings were low, with the exception of live stock on farms with incomes of $2,500 and over. The percentages of machinery values were highest for farms with medium incomes, and lowest for those with the smallest and largest incomes.

Table LXI shows the value of farm land and buildings, and the per cent of the total of such value that is in buildings.

TABLE LXI.—VALUE OF FARM LAND AND BUILDINGS, JUNE 1, 1900, WITH PERCENTAGES, FOR FARMS CLASSIFIED BY VALUE OF PRODUCTS OF 1899 NOT FED TO LIVE STOCK.

FARMS CLASSIFIED BY VALUE OF PRODUCTS OF 1899 NOT FED TO LIVE STOCK.	Total.	Land with improvements (except buildings).	Buildings.	Per cent in buildings.
Total	$16,674,690,247	$13,114,492,056	$3,560,198,191	21.4
$0	87,078,766	76,398,861	10,679,905	12.3
$1 and under $50	103,172,169	77,850,831	25,321,338	24.5
$50 and under $100	203,594,714	146,602,406	56,992,308	28.0
$100 and under $250	1,097,908,627	791,419,091	306,489,536	27.9
$250 and under $500	2,423,201,200	1,797,660,343	625,540,857	25.8
$500 and under $1,000	4,399,662,760	3,387,890,387	1,011,772,373	23.0
$1,000 and under $2,500	5,691,265,893	4,570,963,582	1,120,302,311	19.7
$2,500 and over	2,668,806,118	2,265,706,555	403,099,563	15.1

The value of buildings constituted the highest per cent of the value of all farm property for the group of farms with incomes of $50 and under $100, and decreased steadily to those of largest and smallest incomes. The cabin on the one-mule cotton plantation operated by the negro had but little value, but the figures of the table indicate that it represented a larger per cent of the value of the land tilled than did the buildings on any other class of farms.

Table LXII gives the number of farms in the various groups classified by amount of income, the number and per cent of those with buildings, and the average value of land and buildings.

TABLE LXII.—NUMBER OF FARMS AND NUMBER AND PER CENT OF THOSE WITH BUILDINGS, JUNE 1, 1900, WITH AVERAGE VALUES OF LAND AND BUILDINGS, FOR FARMS CLASSIFIED BY VALUE OF PRODUCTS OF 1899 NOT FED TO LIVE STOCK.

FARMS CLASSIFIED BY VALUE OF PRODUCTS OF 1899 NOT FED TO LIVE STOCK.	NUMBER OF FARMS.			AVERAGE VALUE OF—			
				Land, exclusive of buildings.		Buildings.	
	Total.	With buildings.	Per cent with buildings.	Per farm.	Per acre.	Per farm.	Per farm with buildings.
Total	5,739,657	5,537,731	96.5	$2,285	$15.59	$620	$643
$0	53,406	39,695	74.3	1,430	5.05	200	269
$1 and under $50	167,569	149,790	89.4	464	7.45	151	169
$50 and under $100	305,590	281,983	92.3	480	8.19	186	202
$100 and under $250	1,247,731	1,189,268	95.3	634	9.34	246	258
$250 and under $500	1,602,854	1,560,151	97.3	1,122	11.81	390	401
$500 and under $1,000	1,378,944	1,348,958	97.8	2,457	17.09	734	750
$1,000 and under $2,500	829,443	817,298	98.5	5,511	23.45	1,351	1,371
$2,500 and over	154,120	150,588	97.7	14,701	13.51	2,616	2,677

The average values of land per farm and per acre call for no special discussion. They are of the same character as pointed out for the value of all forms of farm property in the discussion of table LX. The average value of buildings was smallest for farms with the lowest income, increasing steadily to those of largest income. The buildings on farms with no reported income were but slightly greater in value than those on farms with smallest incomes, although the land was worth more than three times as much per farm.

In table LXIII are shown the total and average values per farm and per acre, June 1, 1900, of implements and machinery on farms of specified incomes.

TABLE LXIII.—TOTAL VALUE, AND AVERAGE VALUES PER FARM AND PER ACRE, JUNE 1, 1900, OF IMPLEMENTS AND MACHINERY ON FARMS OF SPECIFIED VALUES OF PRODUCTS OF 1899 NOT FED TO LIVE STOCK.

FARMS CLASSIFIED BY VALUE OF PRODUCTS OF 1899 NOT FED TO LIVE STOCK.	Number of farms.	VALUE OF IMPLEMENTS AND MACHINERY.			
		Total.	Average.		Per cent of value of land.[1]
			Per farm.	Per acre.	
Total	5,739,657	$761,261,550	$133	$0.90	5.8
$0	53,406	2,864,500	54	.19	3.7
$1 and under $50	167,569	4,001,415	24	.38	5.1
$50 and under $100	305,590	8,612,570	28	.48	5.9
$100 and under $250	1,247,731	52,374,613	42	.62	6.6
$250 and under $500	1,602,854	125,212,077	78	.82	7.0
$500 and under $1,000	1,378,944	212,798,665	154	1.07	6.3
$1,000 and under $2,500	829,443	235,020,780	283	1.21	5.1
$2,500 and over	154,120	120,376,930	781	.72	5.3

[1] Exclusive of buildings.

The averages per acre form a series, rising from $0.19 for farms with no reported incomes to $1.21 for those with incomes of $1,000 and less than $2,500; but the average for farms with incomes of $2,500 and over was only $0.72. This last class is chiefly composed of live-stock farms, which require less machinery than farms more intensively cultivated. The average per farm, however, was greatest for the farms with largest incomes. The value of implements, compared with that of the land upon which they were used, was greatest for farms with incomes of $250 to $499, constituting 7.0 per cent of the value of the land.

The very high average value shown for the group with no reported income and for the group with the highest income is due to the defects, previously mentioned, of the returns from the great cattle and sheep ranches of the West, many of which make use of the public domain. Some of these were included among farms with no income; while others submitting complete and accurate statements of animals sold and animals slaughtered on farms, appear among farms with the highest income.

Table LXIV gives the number of farms, the value of all live stock, and the average value of the same per farm and per acre, for farms of designated amounts of income.

TABLE LXIV.—TOTAL VALUE, AND AVERAGE VALUES PER FARM AND PER ACRE OF LIVE STOCK, JUNE 1, 1900, ON FARMS OF SPECIFIED VALUES OF PRODUCTS OF 1899 NOT FED TO LIVE STOCK.

FARMS CLASSIFIED BY VALUE OF PRODUCTS OF 1899 NOT FED TO LIVE STOCK.	Number of farms.	VALUE OF ALL LIVE STOCK.		
		Total.	Average.	
			Per farm.	Per acre.
All farms	5,739,657	$3,078,050,041	$536	$3.66
$0	53,406	44,851,749	840	2.97
$1 and under $50	167,569	18,570,816	111	1.78
$50 and under $100	305,590	36,055,821	118	2.01
$100 and under $250	1,247,731	208,609,495	167	2.46
$250 and under $500	1,602,854	455,922,584	284	3.00
$500 and under $1,000	1,378,944	743,988,110	539	3.75
$1,000 and under $2,500	829,443	902,534,660	1,088	4.63
$2,500 and over	154,120	667,516,806	4,331	3.98

FARMS CLASSIFIED BY TENURE.

FARMS OF SPECIFIED TENURES, BY GEOGRAPHIC DIVISIONS.

Table LXV gives, by geographic divisions, the number of farms classified by tenure; and table LXVI shows, for each division, the percentage in each class. Tables 12, 13, and 14 give more detailed statistics of the same character.

TABLE LXV.—NUMBER OF FARMS OF SPECIFIED TENURES, JUNE 1, 1900, BY GEOGRAPHIC DIVISIONS.

GEOGRAPHIC DIVISIONS.	Total.	Owners.	Part owners.	Owners and tenants.	Managers.	Cash tenants.	Share tenants.
The United States	5,739,657	3,149,344	451,515	53,299	59,213	752,920	1,273,366
North Atlantic	677,506	490,066	27,207	6,332	13,119	66,361	74,421
South Atlantic	902,225	474,540	46,899	6,073	9,115	172,699	252,899
North Central	2,196,567	1,271,798	266,405	26,020	19,618	207,732	404,994
South Central	1,658,166	743,097	86,469	13,404	9,650	286,091	519,455
Western	242,908	169,147	24,396	1,470	7,583	18,782	21,530
Alaska and Hawaii	2,285	696	189	.....	128	1,255	67

TABLE LXVI.—PER CENT OF THE NUMBER OF FARMS OF SPECIFIED TENURES, JUNE 1, 1900, BY GEOGRAPHIC DIVISIONS.

GEOGRAPHIC DIVISIONS.	Owners.	Part owners.	Owners and tenants.	Managers.	Cash tenants.	Share tenants.
The United States	54.9	7.9	0.9	1.0	13.1	22.2
North Atlantic	72.3	4.0	0.9	2.0	9.8	11.0
South Atlantic	49.3	4.9	0.6	0.9	18.0	26.3
North Central	57.9	12.1	1.2	0.9	9.5	18.4
South Central	44.8	5.2	0.8	0.6	17.3	31.3
Western	69.6	10.1	0.6	3.1	7.7	8.9
Alaska and Hawaii	30.5	6.1	.....	5.6	54.9	2.9

The largest group by tenure was that of owners, i. e., persons who own all the land in the farms operated by them. It contained 3,149,344 farms, or 54.9 per cent of the total number. The next largest group was that of share tenants, comprising 1,273,366 farms, or 22.2 per cent of the total. The farms operated by cash tenants numbered 752,920, or 13.1 per cent of the total; those operated by part owners, 451,515, or 7.9 per cent; those operated by owners and tenants, 53,299, or 0.9 per cent; and those operated by salaried managers or overseers, 59,213, or 1.0 per cent.

The total number of farms in the three groups designated in the table as those of owners, part owners, and owners and tenants was 3,654,158, constituting 63.7 per cent of all farms in the country. There was 1 such farm for every 14 individuals outside of cities with 8,000 inhabitants and over. In 1850 the ratio of all farms to the population outside of cities of this size was the same as that above given for those of owners only, namely, 1 to 14. It is evident, then, that the number of farms operated by owners has more than kept pace with the growth of nonurban population. The ownership of farm land among tillers of the soil has greatly increased since the middle of the last century. The gain was very large in all the Northern states, notably in New York, which witnessed a widespread anti-rent agitation extending from 1830 until after the adoption of the constitution of 1846. The per cent of increase among the farming population proper was even greater,

as will be brought out later in discussing some of the other data of this report.

The per cent of farms operated by owners was greatest in the North Atlantic division, 72.3, and least in Alaska and Hawaii, where it was 30.5. In the South Atlantic division it was 49.3; in the North Central, 57.9; in the South Central, 44.8; and in the Western, 69.6. Considering as owners, only those operators of farms who own all the land therein, the condition of the farmers of the North Central and Western divisions would seem to compare unfavorably with the condition of the farmers of the North Atlantic division, but this is not the fact. The North Central and Western divisions reported large numbers of farms whose operators owned a farm and leased additional lands, and, on an average, the portion of the land owned by the operator contained as many acres as the average farm of an owner who did not lease additional lands. Any study of the extent of farm ownership among the actual tillers of the soil must take into account not only owners, but part owners, and owners and tenants. The per cent of all farms included in these three classes was greatest in the Western division, where it was 80.3. In the North Atlantic division it was 77.2; in the North Central, 71.2; in the South Atlantic, 54.8; in the South Central, 50.8; and in Alaska and Hawaii, 36.6.

The per cent of farms operated by part owners was greatest in the North Central and Western divisions, and those operated by managers, in the North Atlantic and Western. In the North Atlantic division farms operated by managers represented in many cases the holdings of wealthy business men who owned country homes. In the Western division the farms operated by managers were largely cattle and sheep ranches belonging to corporations of wealthy investors. Of these two classes, the farms in the Western division were conducted for profit, while those in the North Atlantic were not. In every section a considerable number of farms connected with public institutions were managed by the superintendents in charge. Leaving Hawaii out of consideration, the tenant class was relatively most numerous in the South Atlantic and South Central states; but in Hawaii the relative number of tenants largely exceeds that for any state, and the proportion of cash tenants was greater than that of any of the five geographic divisions.

FARMS OF SPECIFIED TENURES CLASSIFIED BY OTHER CHARACTERISTICS.

Tables 3, 4, and 5 present, for each state and territory, farms of specified tenures classified by principal source of income, value of products not fed to live stock, area of farm, and color of farmer. Table LXVII gives a summary, by percentages, of a few of the most important facts shown in those tables.

TABLE LXVII.—PER CENT OF THE NUMBER OF FARMS OF SPECIFIED TENURES, JUNE 1, 1900, CONTAINED IN DESIGNATED GROUPS OF FARMS CLASSIFIED BY AREA, BY PRINCIPAL SOURCE OF INCOME, BY VALUE OF PRODUCTS OF 1899 NOT FED TO LIVE STOCK, AND BY RACE OF FARMER.

A.—FARMS CLASSIFIED BY AREA IN ACRES.

CLASSES.	Per cent of all farms.	PER CENT OF THE NUMBER OF FARMS OF SPECIFIED TENURES.					
		Owners.	Part owners.	Owners and tenants.	Managers.	Cash tenants.	Share tenants.
All farms	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Under 3	0.7	0.9	0.1	0.1	1.5	1.2	0.2
3 and under 10	2.0	3.9	1.8	0.7	2.6	6.8	3.5
10 and under 20	7.1	5.0	4.0	2.0	4.2	10.8	11.5
20 and under 50	21.9	17.3	13.5	10.4	10.9	30.9	32.0
50 and under 100	23.8	26.2	21.4	23.6	16.3	20.9	20.9
100 and under 175	24.8	28.5	23.0	33.7	22.7	18.2	19.9
175 and under 260	8.5	9.0	14.1	14.7	11.1	6.0	6.5
260 and under 500	6.6	6.9	14.0	11.2	12.9	3.7	4.4
500 and under 1,000	1.8	1.7	5.0	2.8	7.4	1.0	0.9
1,000 and over	0.8	0.6	3.1	0.8	10.4	0.5	0.2

B.—FARMS CLASSIFIED BY PRINCIPAL SOURCE OF INCOME.

Hay and grain	23.0	20.1	31.3	23.2	24.8	17.7	30.2
Vegetables	2.7	3.0	2.5	2.0	3.5	3.9	1.4
Fruits	1.4	1.9	1.2	1.2	0.2	0.8	0.6
Live stock	27.3	33.2	35.8	39.0	31.6	15.7	15.6
Dairy produce	6.2	7.8	4.3	5.0	10.1	5.9	3.0
Tobacco	1.9	1.5	1.3	3.1	1.1	1.3	3.3
Cotton	18.7	9.6	8.2	7.1	6.8	41.8	32.2
Rice	0.1	0.1	0.1	(1)	0.3	0.2	0.1
Sugar	0.1	0.1	0.1	0.1	0.7	0.2	0.1
Flowers and plants	0.1	0.2	(1)	0.1	0.3	0.1	(1)
Nursery products	(1)	(1)	0.1	(1)	0.1	(1)	(1)
Miscellaneous[2]	18.5	22.5	15.1	19.2	14.5	12.4	13.5

C.—FARMS CLASSIFIED BY VALUE OF PRODUCTS OF 1899 NOT FED TO LIVE STOCK.

$0	0.9	0.8	0.3	0.3	3.2	1.2	1.2
$1 and under $50	2.9	2.5	1.2	0.9	2.5	4.3	3.9
$50 and under $100	5.3	5.0	3.0	2.0	3.9	6.7	6.3
$100 and under $250	21.8	21.0	14.6	12.9	13.2	24.1	25.4
$250 and under $500	27.9	28.2	23.3	26.4	16.9	28.8	29.0
$500 and under $1,000	24.0	25.6	27.9	32.4	20.5	20.5	20.7
$1,000 and under $2,500	14.5	14.4	23.9	21.6	22.3	12.1	11.9
$2,500 and over	2.7	2.5	5.8	3.5	17.5	2.3	1.6

D.—FARMS CLASSIFIED BY RACE OF FARMER.

White	86.6	94.4	93.2	97.0	96.9	63.4	77.6
Negro	13.0	5.0	6.7	2.8	2.9	36.3	22.3
Indian	0.4	0.6	0.1	0.2	0.1	(1)	0.1
Chinese	(1)	(1)	(1)	(1)	0.1	0.2	(1)
Japanese	(1)	(1)	(1)	.....	(1)	0.1	(1)
Hawaiian[3]	(1)	(1)	(1)	.....	(1)	(1)	(1)

[1] Less than one-tenth of 1 per cent.
[2] Includes 411 taro farms and 512 coffee farms in Hawaii.
[3] Including part Hawaiian and 1 South Sea Islander.

The figures in this table illustrate in another way the facts so forcibly brought out by the corresponding percentages for table XXXVII. The per cent of farms operated by tenants was always smaller for those of largest area than for all farms, while the per cent of the four classes of owned farms was greater for farms of largest area than for all farms. The reverse was true

for farms of small area, except for the group of farms containing less than 3 acres. This table does not bring out the fact as clearly as did table XXXVII, because the percentages for the two classes of tenant-operated farms and those for the four classes of owners can not be combined as can those of table XXXVII.

The figures in table XLVII relating to farms classified by principal source of income should be studied in connection with tables XLVII, LVII, and LXXVII, and the figures relating to farms classified by value of products not fed to live stock, in connection with table LVII. The additional figures here given call for no extended explanation.

The percentages of farms of all tenures, as shown in table XLVII, involving the active participation of their owners, were larger for white farmers than for the farmers of the country as a whole. In the same way the percentages of tenant-operated farms were lower for white farmers than for all farmers.

White farmers constituted 86.6 per cent of all farmers, but operated 94.4 per cent of the farms of owners, 93.2 per cent of those of part owners, 97.0 per cent of those of owners and tenants, 96.9 per cent of those of managers, 63.4 per cent of the cash-tenant farms, and 77.6 per cent of the share-tenant farms. Negroes exhibited the opposite characteristics. They constituted 13.0 per cent of all farmers, but operated only 5.0 per cent of those of owners, 6.7 per cent of those of part owners, 2.8 per cent of those of owners and tenants, 2.9 per cent of the managed farms, 36.3 per cent of the cash-tenant farms, and 22.3 per cent of the share-tenant farms.

Indians operated 0.4 per cent of all farms; they constituted 0.6 per cent of all farm owners, and showed correspondingly lower percentages of both cash and share tenants. The percentages for the other races shown in table LXVII are too small to permit definite deductions. For the relative number of farms of the several tenures operated by those races, reference should be made to table LXVII.

Plate 17 fully illustrates the foregoing statements.

TENURE OF FARMS AND OF FARM FAMILIES COMPARED.

The number of farms reported by the division of agriculture, 5,739,657, is 0.7 per cent greater than the number of farm families reported by the division of population, 5,700,341. The number of farms reported exceeds the number of farm families in 5 of the 9 North Atlantic states, in 4 of the 9 South Atlantic, in 11 of the 12 North Central, in 4 of the 9 South Central, in 4 of the 11 Western states and territories, and in Hawaii, or in 29 of the 52 states and territories. For most of the states, whether the number of farms was greater or smaller than the number of farm families, the difference was slight, the only marked exception being Arizona, where 7,391 farm families and only 5,809 farms were reported. The variation here is unquestionably the result of incomplete agricultural reports, mainly among the Indian farmers. Upon some of the Indian reservations in Arizona the enumerators reported all of the farm property and products of the tribe upon one schedule, and in the reports of the agricultural division the operations of all the families appear as upon one farm, while in the reports of the population division the separate families of the tribes all appear as farm families.

The population figures, therefore, more fully express the facts of the case, so far as the number of farms and of farm families are concerned, than do those of the division of agriculture. The same error appears to a less extent in the reports of several Western states in which large Indian reservations are located, and the resulting variations can be seen in the figures for New Mexico and Montana.

In Indian Territory and Oklahoma there are many Indian families who have been allotted lands in severalty and who have leased those lands to tenants. This land appears in the reports of the division of agriculture under the name of the tenant, and no schedule was returned for the Indian citizen who did not actually work the land himself. He was, however, reported by the population division as the head of a farm family. In Indian Territory there were also many floaters who reported themselves as farmers, thus adding to the "unknown" so far as ownership of farms is concerned.

In many Southern states where the negroes work land as tenants the enumerators reported all the land and crops in the name of the owner or manager, and returned no farm schedule for the tenant. The families of the tenants were reported on the population schedules as farm families, thus increasing the number of such families above that of farms.

In Florida, in the fruit sections of California, and elsewhere, there were small fruit orchards in 1899 to which families were devoting their whole time, although the trees in those orchards had not reached bearing ages. These orchards, when containing less than 10 acres and having no income as a result of the immaturity of the trees, were not tabulated as farms, although schedules for a considerable number of them were received by the division of agriculture. Wherever one of these factors is present it assists in causing a variation in the two sets of figures, those of the division of population being the more correct. Outside of the sections where these inaccuracies reduced the number of farms reported there should be an excess in the number of farms over the number of farm families, since many individuals operate farms who have no families of their own but board in the families of others. Such cases are far more numerous than those in which two families join to operate the same farm, as in the case of many of the "owners and tenants," and certain other farms where two heads of families are in partnership, either as owners or as tenants.

TABLE LXVIII.—NUMBER AND PER CENT OF FARMS, JUNE 1, 1900, OPERATED BY OWNERS, MANAGERS, AND TENANTS, AND OF FAMILIES RESIDING ON OWNED AND HIRED FARMS, BY STATES AND TERRITORIES.

STATES AND TERRITORIES.	NUMBER OF FARMS.						NUMBER OF FARM FAMILIES.				PER CENT OF—					
	Total.	Number with buildings.	Operated by—				Total.	Owning farms.	Hiring farms.	Unknown.	Farms operated by—			Farm families.		
			Owners.[1]	Managers.	Tenants.[2]	Owners and tenants.[3]					Owners.[1]	Managers.	Tenants.[2]	Owning farms.	Hiring farms.	Unknown.
The United States	5,739,657	5,537,731	3,654,158	59,213	2,026,286	53,299	[4]5,700,341	[4]3,644,669	2,014,316	41,356	63.7	1.0	35.3	64.0	35.3	0.7
North Atlantic division	677,506	666,832	523,605	13,119	140,782	6,332	675,776	524,846	146,740	4,190	77.2	2.0	20.8	77.7	21.7	0.6
Maine	59,299	58,136	55,607	917	2,775	569	57,153	53,609	3,191	353	93.8	1.5	4.7	93.8	5.6	0.6
New Hampshire	29,324	28,795	26,450	689	2,185	106	28,271	25,472	2,614	185	90.2	2.3	7.5	90.1	9.2	0.7
Vermont	33,104	32,558	27,669	615	4,820	314	32,871	27,344	5,379	148	83.6	1.9	14.5	83.2	16.4	0.4
Massachusetts	37,715	36,703	32,581	1,531	3,603	356	36,510	31,722	4,485	303	86.3	4.1	9.6	86.9	12.3	0.8
Rhode Island	5,498	5,401	4,182	208	1,108	12	5,638	4,249	1,353	36	76.1	3.8	20.1	75.4	24.0	0.6
Connecticut	26,948	26,507	22,705	776	3,467	349	26,609	22,727	3,695	187	84.3	2.9	12.8	85.4	13.9	0.7
New York	226,720	223,836	168,698	3,819	54,203	2,245	227,822	171,173	55,208	1,441	74.4	1.7	23.9	75.2	24.2	0.6
New Jersey	34,650	34,027	23,434	861	10,355	207	35,337	24,133	10,900	304	67.6	2.5	29.9	68.3	30.8	0.9
Pennsylvania	224,248	220,869	162,279	3,703	58,266	2,174	225,565	164,417	59,915	1,233	72.4	1.6	26.0	72.9	26.6	0.5
South Atlantic division	962,225	931,320	527,512	9,115	425,598	6,073	961,198	526,837	427,710	6,651	54.8	0.9	44.3	54.8	44.5	0.7
Delaware	9,687	9,545	4,680	191	4,876	26	9,677	4,722	4,879	76	48.3	1.4	50.3	48.8	50.4	0.8
Maryland	46,012	45,364	29,513	1,052	15,447	180	47,089	30,434	16,075	580	64.1	2.3	33.6	64.6	34.2	1.2
District of Columbia	269	267	133	20	116	.....	270	150	115	5	49.4	7.5	43.1	55.6	42.6	1.8
Virginia	167,886	164,074	114,155	2,135	51,596	1,504	170,412	115,933	53,569	910	68.0	1.3	30.7	68.0	31.5	0.5
West Virginia	92,874	90,342	71,529	1,054	20,291	1,112	94,566	71,028	22,976	562	77.1	1.1	21.8	75.1	24.3	0.6
North Carolina	224,637	217,744	130,572	1,057	93,008	1,594	223,831	128,975	93,806	1,050	58.1	0.5	41.4	57.6	41.9	0.5
South Carolina	155,355	148,864	59,417	1,054	94,884	484	152,993	58,513	93,570	910	38.3	0.7	61.0	38.2	61.2	0.6
Georgia	224,691	215,855	88,529	1,602	134,560	893	221,395	88,416	130,823	2,156	39.4	0.7	59.9	39.9	59.1	1.0
Florida	40,814	39,265	28,984	1,010	10,820	280	40,965	28,666	11,897	402	71.0	2.5	26.5	70.0	29.0	1.0
North Central division	2,196,567	2,120,726	1,564,223	19,618	612,726	26,020	2,174,562	1,561,783	597,805	14,974	71.2	0.9	27.9	71.8	27.5	0.7
Ohio	276,719	268,404	197,361	3,427	75,931	4,261	280,063	202,111	76,409	1,548	71.3	1.2	27.5	72.2	27.3	0.5
Indiana	221,897	214,721	156,227	2,222	63,448	3,680	221,451	156,949	63,033	1,469	70.4	1.0	28.6	70.9	28.5	0.6
Illinois	264,151	255,285	158,503	1,950	103,698	2,413	262,388	158,496	101,817	2,075	60.0	0.7	39.3	60.4	38.8	0.8
Michigan	203,261	198,063	168,814	2,234	32,213	2,325	202,457	168,235	33,087	1,135	83.0	1.1	15.9	83.1	16.3	0.6
Wisconsin	169,795	166,323	145,408	1,391	22,996	855	169,531	146,191	22,453	887	85.7	0.8	13.5	86.2	13.3	0.5
Minnesota	154,659	149,073	123,809	1,095	26,755	756	152,393	125,547	25,626	1,220	82.0	0.7	17.3	82.4	16.8	0.8
Iowa	228,622	220,626	147,305	1,581	79,736	2,129	223,525	146,844	75,161	1,520	64.4	0.7	34.9	65.7	33.6	0.7
Missouri	281,886	275,634	196,158	1,831	86,897	5,188	282,840	194,593	86,528	1,719	68.9	0.6	30.5	68.8	30.6	0.6
North Dakota	45,332	43,550	40,972	495	3,865	212	44,112	39,569	4,173	370	90.4	1.1	8.5	89.7	9.5	0.8
South Dakota	52,622	50,225	40,640	531	11,451	485	51,937	40,188	11,358	391	77.2	1.0	21.8	77.4	21.9	0.7
Nebraska	121,525	114,537	75,583	1,182	44,810	1,154	116,854	74,436	41,520	898	62.2	0.9	36.9	63.7	35.5	0.8
Kansas	173,098	164,285	110,443	1,729	60,926	2,562	167,606	108,624	56,640	1,742	63.8	1.0	35.2	65.0	33.9	1.1
South Central division	1,658,166	1,586,829	842,970	9,650	805,546	13,404	1,642,227	833,908	795,558	12,761	50.8	0.6	48.6	50.8	48.4	0.8
Kentucky	234,667	226,498	155,996	1,606	77,065	3,780	234,821	154,670	78,271	1,880	66.4	0.7	32.9	65.9	33.3	0.8
Tennessee	224,623	215,550	132,197	1,286	91,140	3,616	226,027	132,835	91,650	1,542	58.9	0.6	40.5	58.8	40.5	0.7
Alabama	223,220	212,551	93,472	874	128,874	869	217,461	91,697	124,114	1,650	41.9	0.4	57.7	42.2	57.1	0.7
Mississippi	220,803	211,299	82,021	930	137,852	609	221,110	79,990	139,404	1,716	37.2	0.4	62.4	36.2	63.0	0.8
Louisiana	115,969	110,796	47,701	1,034	67,234	352	114,214	47,443	65,944	827	41.2	0.9	57.9	41.6	57.7	0.7
Texas	352,190	332,810	174,639	2,560	174,991	1,680	341,889	172,160	168,023	1,706	49.6	0.7	49.7	50.4	49.1	0.5
Oklahoma	62,495	60,505	49,040	306	13,149	686	63,094	48,767	13,688	639	78.5	0.5	21.0	77.3	21.7	1.0
Indian Territory	45,505	44,857	11,169	235	34,101	156	47,594	11,937	34,795	862	24.6	0.5	74.9	25.1	73.1	1.8
Arkansas	178,694	171,963	96,785	819	81,140	1,656	176,017	94,409	79,669	1,939	54.1	0.5	45.4	53.6	45.3	1.1
Western division	242,908	229,904	195,013	7,583	40,312	1,470	245,138	196,310	46,090	2,738	80.3	3.1	16.6	80.1	18.8	1.1
Montana	13,370	12,878	11,661	479	1,230	69	13,909	12,145	1,568	196	87.2	3.6	9.2	87.3	11.3	1.4
Wyoming	6,095	5,419	5,185	446	464	38	5,939	5,104	737	98	85.1	7.3	7.6	85.9	12.4	1.7
Colorado	24,700	23,532	18,239	880	5,581	136	24,745	17,947	6,403	395	73.8	3.6	22.6	72.5	25.9	1.6
New Mexico	12,311	10,144	10,674	483	1,154	71	13,102	11,498	1,429	175	86.7	3.9	9.4	87.8	10.9	1.3
Arizona	5,809	4,464	4,985	335	489	10	7,391	6,524	764	103	85.8	5.8	8.4	88.3	10.3	1.4
Utah	19,387	18,224	17,363	311	1,713	135	19,529	17,790	1,619	120	89.6	1.6	8.8	91.1	8.3	0.6
Nevada	2,184	2,063	1,809	126	249	17	2,164	1,853	282	29	82.8	5.8	11.4	85.6	13.0	1.4
Idaho	17,471	16,715	15,585	357	1,529	164	17,153	15,160	1,760	233	89.2	2.1	8.7	88.4	10.3	1.3
Washington	33,202	32,222	28,020	405	4,777	194	33,931	28,109	5,585	237	84.4	1.2	14.4	82.8	16.5	0.7
Oregon	35,837	34,976	28,963	508	6,366	327	36,156	28,753	7,196	207	80.8	1.4	17.8	79.5	19.9	0.6
California	72,542	69,267	52,529	3,253	16,760	309	71,119	51,427	18,747	945	72.4	4.5	23.1	72.3	26.4	1.3
Alaska	12	9	12	.....	.....	.....	27	25	2	.....	100.0	.....	.....	92.6	7.4	.....
Hawaii	2,273	2,111	823	128	1,322	.....	1,409	956	411	42	36.2	5.6	58.2	67.8	29.2	3.0

[1] Including owners, part owners, and owners and tenants
[2] Including cash and share tenants
[3] Included also in column marked "Owners."
[4] Including 4 in military and naval service not included in any state or territory.

Table LXVIII presents, by states and territories, the statistics of farms operated by owners, managers, and tenants. Under the designation "owners" are included the three groups of "owners," "part owners," and "owners and tenants." The farms whose numbers are given in the column with the title "owners and tenants" are also included in the column designated "owners." They are given separately to indicate the probable number of farms in the several states for which there are two farm families. Under the head of "tenants" are included "cash tenants" and "share tenants." Table LXVIII presents also, in parallel columns, the number of farm families reported by the division of population as residing upon owned and upon rented farms, and the number of farm families with farms, by whom the question of farm ownership or tenancy was unanswered. The same table presents also for each of these states the per cent which these classes of farms and of farm families constitute of the whole.

In preparing table LXVIII "managers" have been left in a class by themselves, as it is uncertain how they were reported upon the population schedules. Some were doubtless reported as owners and other, as tenants, but the exact number reported as having owned or hired farms is uncertain. These farms constituted 1.0 per cent of all. Corresponding in some respects to this class is that of farm families for whom no reports were received as to whether they owned or hired the farms on which they resided. These constituted 0.7 per cent of all farm families, or nearly as large a part as the farms of managers constituted of the total number of farms. A comparison of the two sets of percentages in table LXVIII affords evidence of the general accuracy of the two reports, the small errors in the farm reports of the division of agriculture to which attention has been called, being counterbalanced by errors of the opposite character in the reports of farm families by the division of population. Considering the wholly different sources of information and the wide difference in its nature and in the treatment which it received in tabulation, the degree of harmony in the percentages of the two reports is remarkable.

The number of farms operated by owners constituted 63.7 per cent of all farms in the United States, while the number of farm families living on farms that they owned was 64.0 per cent, a variation of only three-tenths of 1 per cent. In the North Atlantic States the farms operated by owners constituted 77.2 per cent of all farms, and the farm families who owned their homes, 77.7 per cent of all farm families. In the South Atlantic division the two percentages were identical, 54.8; in the North Central, the owned farms were 71.2 per cent of all, and the families residing on owned farms, 71.8 per cent; in the South Central the two agreed, the per cent for each being 50.8. In the Western division the two percentages differ slightly, that for owned farms being 80.3, and that for families on owned farms being 80.1.

With a few exceptions, there is the same close agreement in the percentages for all the states and territories. The most marked exception is in Nevada, where the per cent of families residing upon their own farms exceeds the per cent of farms operated by owners by only 2.8. The difference is due to the fact that most of the Indian farm families reported by the division of population, but whose farms were not separately reported by the division of agriculture, resided upon their own farms.

Table LXIX presents a comparison, by states and territories, of the data corresponding to the above, as reported at the Eleventh Census. No statistics were reported at that census for Alaska, Hawaii, or Indian Territory.

No such agreement is found here as in the totals and percentages of table LXVIII. The number of farm families exceeds that of farms, indicating that farms were omitted in far greater numbers than in 1900. The differences in the two sets of percentages suggest that the farms omitted, if such they were, were largely those of tenants similar to the negro cotton growers of the South. The greatest variations were in the South Central and South Atlantic divisions, in which this class of tenants are found, and in which a limited number of farms are known to have been omitted from the enumeration of 1900. The variation in 1890 suggests also, in view of the corresponding figures for 1900, that there were factors involving errors in the tabulation of the data on the population schedules. As the report on the ownership of farms and homes made in 1890 was the first of the kind ever attempted, it would not be strange if there were such elements of error.

In its tabulation of the data of occupations the division of population of the Twelfth Census succeeded in putting the statistics into a form that will be of great assistance in the study of the problems of American agriculture. These statistics of occupation will be a check, also, upon the accuracy of the statistics of agriculture and of farm families. For purposes of comparison, the occupation tables of the division of population, so far as they relate to agriculture, are reproduced in table LXX. Lumbermen and raftsmen were consolidated with wood choppers under one head to permit the presentation of the whole table on 4 pages. The classes included under the general heads of farmers, planters, and overseers aggregated 5,681,234, less than the total number of farms, 5,739,657, and a little less than the number of farm families, which was 5,700,341. The number of persons reported under the general head of farmers, planters, and overseers may, therefore, be compared, state by state, with the number of farms and of farm families. Such a comparison is made by geographic divisions in table LXXI.

TABLE LXIX.—NUMBER AND PER CENT OF FARMS, JUNE 1, 1890, OPERATED BY OWNERS AND TENANTS, AND OF FAMILIES RESIDING ON OWNED AND HIRED FARMS, BY STATES AND TERRITORIES.

STATES AND TERRITORIES.	NUMBER OF FARMS.			NUMBER OF FARM FAMILIES.			PER CENT OF—			
	Total.	Operated by—		Total.	Residing on—		Farms operated by—		Families residing on—	
		Owners.	Tenants.		Owned farms.	Hired farms.	Owners.	Tenants.	Owned farms.	Hired farms.
The United States	4,564,641	3,269,728	1,294,913	4,767,179	3,142,746	1,624,433	71.6	28.4	65.9	34.1
North Atlantic division	658,569	537,376	121,193	660,407	518,722	141,685	81.6	18.4	78.5	21.5
Maine	62,013	58,643	3,370	62,122	57,391	4,731	94.6	5.4	92.4	7.6
New Hampshire	29,151	26,827	2,324	29,151	25,969	3,182	92.0	8.0	89.1	10.9
Vermont	32,573	27,816	4,757	32,573	26,835	5,738	85.4	14.6	82.4	17.6
Massachusetts	34,374	31,177	3,197	34,576	29,370	5,206	90.7	9.3	84.9	15.1
Rhode Island	5,500	4,470	1,030	5,500	4,125	1,375	81.3	18.7	75.0	25.0
Connecticut	26,350	23,310	3,040	26,439	21,765	4,674	88.5	11.5	82.3	17.7
New York	226,223	180,472	45,751	226,632	174,652	51,980	79.8	20.2	77.1	22.9
New Jersey	30,828	22,442	8,386	31,942	21,687	10,255	72.8	27.2	67.9	32.1
Pennsylvania	211,557	162,219	49,338	211,472	156,928	54,544	76.7	23.3	74.2	25.8
South Atlantic division	749,600	461,057	288,543	772,596	418,461	354,135	61.5	38.5	54.2	45.8
Delaware	9,381	4,978	4,403	9,381	4,745	4,636	53.1	46.9	50.6	49.4
Maryland	40,798	28,154	12,644	41,372	25,969	15,403	69.0	31.0	62.8	37.2
District of Columbia	382	242	140	387	242	145	63.4	36.6	62.5	37.5
Virginia	127,600	93,311	34,289	132,790	82,256	50,534	73.1	26.9	61.9	38.1
West Virginia	72,773	59,858	12,915	76,157	56,035	20,122	82.2	17.8	73.6	26.4
North Carolina	178,359	117,469	60,890	182,791	106,523	76,268	65.9	34.1	58.3	41.7
South Carolina	115,008	51,428	63,580	117,405	45,218	72,187	44.7	55.3	38.5	61.5
Georgia	171,071	79,477	91,594	175,688	73,607	102,081	46.5	53.5	41.9	58.1
Florida	34,228	26,140	8,088	36,625	23,866	12,759	76.4	23.6	65.2	34.8
North Central division	1,923,822	1,474,086	449,736	1,978,659	1,454,542	524,117	76.6	23.4	73.5	26.5
Ohio	251,430	193,895	57,535	256,264	186,423	69,841	77.1	22.9	72.8	27.2
Indiana	198,167	147,885	50,282	205,331	145,275	60,056	74.6	25.4	70.8	29.2
Illinois	240,681	158,848	81,833	252,953	160,065	92,888	66.0	34.0	63.3	36.7
Michigan	172,344	148,208	24,136	176,764	146,697	30,067	86.0	14.0	83.0	17.0
Wisconsin	146,409	129,681	16,728	148,349	128,913	19,436	88.6	11.4	86.9	13.1
Minnesota	116,851	101,747	15,104	117,893	99,911	17,982	87.1	12.9	84.8	15.2
Iowa	201,903	145,183	56,720	205,435	144,698	60,737	71.9	28.1	70.4	29.6
Missouri	238,043	174,285	63,758	250,832	172,957	77,875	73.2	26.8	69.0	31.0
North Dakota	27,611	25,698	1,913	28,225	25,431	2,794	93.1	6.9	90.1	9.9
South Dakota	50,158	43,555	6,603	49,540	41,521	8,019	86.8	13.2	83.8	16.2
Nebraska	113,608	85,525	28,083	115,928	84,620	31,308	75.3	24.7	73.0	27.0
Kansas	166,617	119,576	47,041	171,145	118,031	53,114	71.8	28.2	69.0	31.0
South Central division	1,086,772	668,972	417,800	1,185,982	613,504	572,428	61.6	38.4	51.7	48.3
Kentucky	179,264	134,529	44,735	188,560	123,071	65,489	75.0	25.0	65.3	34.7
Tennessee	174,412	120,622	53,790	183,726	106,777	76,949	69.2	30.8	58.1	41.9
Alabama	157,772	81,141	76,631	166,690	71,929	94,761	51.4	48.6	43.2	56.8
Mississippi	144,318	68,058	76,260	161,080	60,777	100,303	47.2	52.8	37.7	62.3
Louisiana	69,294	38,539	30,755	79,705	35,458	44,247	55.6	44.4	44.5	55.5
Texas	228,126	132,616	95,510	248,782	126,314	122,468	58.1	41.9	50.8	49.2
Oklahoma	8,826	8,761	65	10,419	9,903	516	99.3	0.7	95.0	5.0
Arkansas	124,760	84,706	40,054	146,970	79,275	67,695	67.9	32.1	53.9	46.1
Western division	145,878	128,237	17,641	169,585	137,517	32,068	87.9	12.1	81.1	18.9
Montana	5,603	5,333	270	6,441	5,578	863	95.2	4.8	86.6	13.4
Wyoming	3,125	2,993	132	3,534	2,796	738	95.8	4.2	79.1	20.9
Colorado	16,389	14,546	1,843	19,178	15,417	3,761	88.8	11.2	80.4	19.6
New Mexico	4,458	4,257	201	9,518	8,393	1,125	95.5	4.5	88.2	11.8
Arizona	1,426	1,313	113	2,299	1,842	457	92.1	7.9	80.1	19.9
Utah	10,517	9,974	543	11,884	10,763	1,121	94.8	5.2	90.6	9.4
Nevada	1,277	1,181	96	1,514	1,270	244	92.5	7.5	83.9	16.1
Idaho	6,603	6,298	305	7,997	7,083	914	95.4	4.6	88.6	11.4
Washington	18,056	16,529	1,527	24,047	19,620	4,427	91.5	8.5	81.6	18.4
Oregon	25,530	22,324	3,206	27,639	22,503	5,136	87.4	12.6	81.4	18.6
California	52,894	43,489	9,405	55,534	42,252	13,282	82.2	17.8	76.1	23.9

TABLE LXX.—NUMBER OF MALES AND FEMALES OVER 10 YEARS OF AGE, JUNE 1, 1900,

[From Division of Population

	STATES AND TERRITORIES.	ALL AGRICULTURAL PURSUITS.			AGRICULTURAL LABORERS.								
					Total.			Farm and plantation.			Farm (members of families).		
		Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.
1	The United States[1]	10,438,188	9,458,163	980,025	4,459,346	3,793,555	665,791	2,047,658	1,825,061	222,597	2,366,318	1,925,247	441,066
2	North Atlantic division	1,074,412	1,039,729	34,683	414,683	410,856	3,827	261,838	260,004	1,834	132,548	131,206	1,342
3	Maine	76,923	73,791	3,132	21,976	21,837	139	12,093	12,032	61	9,615	9,544	71
4	New Hampshire	38,782	37,224	1,558	12,714	12,644	70	8,989	8,953	36	3,631	3,598	33
5	Vermont	49,820	48,352	1,468	18,443	18,323	120	12,583	12,516	72	5,574	5,528	46
6	Massachusetts	66,551	64,669	1,882	31,515	31,301	214	23,321	23,191	130	4,468	4,428	40
7	Rhode Island	10,957	10,673	284	5,304	5,222	82	3,984	3,933	51	703	682	21
8	Connecticut	44,796	43,247	1,549	19,847	19,715	132	14,817	14,736	81	3,685	3,657	28
9	New York	375,990	363,619	12,371	148,456	146,990	1,466	96,833	96,059	774	43,989	43,602	387
10	New Jersey	68,881	67,035	1,846	33,220	32,741	479	23,734	23,528	206	7,052	6,913	139
11	Pennsylvania	341,712	331,119	10,593	123,208	122,083	1,125	65,479	65,056	423	53,831	53,254	577
12	South Atlantic division	2,032,569	1,697,623	334,946	1,047,591	780,073	267,518	450,266	353,878	96,388	593,141	422,657	170,484
13	Delaware	19,002	18,494	508	9,126	8,941	185	5,831	5,773	58	3,201	3,083	118
14	Maryland	95,554	92,014	3,540	50,134	48,958	1,176	33,786	33,301	485	15,076	14,689	387
15	District of Columbia	1,488	1,440	48	618	614	4	408	408	.....	33	32	1
16	Virginia	300,268	277,594	22,674	138,613	128,147	10,466	71,949	66,567	5,382	65,732	60,891	4,841
17	West Virginia	151,722	146,142	5,580	58,796	58,107	689	20,183	19,964	219	38,410	37,957	453
18	North Carolina	459,306	385,187	74,119	233,288	175,316	57,972	84,701	64,234	20,467	148,204	110,714	37,490
19	South Carolina	393,693	278,614	115,079	237,326	135,848	101,478	96,660	61,079	35,581	140,443	74,574	65,869
20	Georgia	522,848	422,530	100,318	282,347	196,565	85,782	120,931	90,066	30,865	160,756	105,860	54,896
21	Florida	88,688	75,608	13,080	37,343	27,577	9,766	15,817	12,486	3,331	21,286	14,857	6,429
22	North Central division	3,508,808	3,408,789	100,019	1,223,143	1,209,612	13,531	580,579	576,520	4,059	632,052	623,027	9,025
23	Ohio	414,662	399,909	14,753	138,066	136,764	1,302	68,835	68,383	452	66,793	66,011	782
24	Indiana	342,733	332,840	9,893	118,498	117,629	869	60,085	59,822	263	57,581	57,015	566
25	Illinois	462,781	450,614	12,167	184,959	183,272	1,687	102,396	101,632	764	80,330	79,495	835
26	Michigan	312,462	303,559	8,903	97,527	96,578	949	48,885	48,566	319	47,709	47,142	567
27	Wisconsin	270,007	261,450	8,557	93,718	92,073	1,645	37,658	37,298	360	55,199	53,978	1,221
28	Minnesota	258,944	252,129	6,815	94,195	92,889	1,306	39,280	38,995	285	54,435	53,427	1,008
29	Iowa	371,604	363,472	8,132	133,450	132,290	1,160	64,789	64,476	313	68,004	67,177	827
30	Missouri	463,293	447,315	15,978	162,916	160,972	1,944	65,900	65,321	579	95,832	94,518	1,314
31	North Dakota	71,626	69,849	1,777	24,193	23,774	419	14,898	14,748	150	9,257	8,988	269
32	South Dakota	82,857	80,696	2,161	26,749	26,149	600	11,445	11,346	99	15,243	14,746	497
33	Nebraska	186,587	182,338	4,249	59,601	58,760	841	26,727	26,516	211	32,564	31,948	616
34	Kansas	271,252	264,618	6,634	89,271	88,462	809	39,681	39,417	264	49,105	48,582	523
35	South Central division	3,300,817	2,808,511	492,306	1,565,831	1,189,470	376,361	597,342	480,694	116,648	964,638	705,161	259,477
36	Kentucky	408,185	390,226	17,959	165,432	161,232	4,200	69,460	68,552	908	95,328	92,066	3,262
37	Tennessee	413,406	379,443	33,963	182,905	163,495	19,410	69,430	64,055	5,375	112,653	98,688	13,965
38	Alabama	515,737	386,735	129,002	286,195	177,761	108,434	98,094	64,011	34,083	187,471	113,156	74,315
39	Mississippi	490,582	362,551	128,031	259,668	151,914	107,754	84,019	53,885	30,134	175,378	97,779	77,599
40	Louisiana	295,445	227,614	67,831	173,510	114,458	59,052	88,198	64,908	23,290	84,798	49,058	35,740
41	Texas	644,634	585,394	59,240	273,188	233,628	39,560	104,735	94,188	10,547	167,818	138,832	28,986
42	Oklahoma	94,931	91,513	3,418	27,896	27,193	703	10,710	10,520	190	17,188	16,680	508
43	Indian Territory	92,418	86,894	5,524	40,582	37,424	3,158	16,367	15,592	775	24,176	21,794	2,382
44	Arkansas	345,479	298,141	47,338	156,455	122,365	34,090	56,329	44,983	11,346	99,878	77,158	22,720
45	Western division	465,159	449,777	15,382	159,629	157,657	1,972	109,671	108,552	1,119	43,770	43,043	727
46	Montana	28,693	28,149	544	8,979	8,946	33	7,290	7,272	18	1,587	1,573	14
47	Wyoming	13,407	13,177	230	3,318	3,301	17	2,367	2,359	8	921	914	7
48	Colorado	44,904	43,747	1,157	14,825	14,722	103	10,648	10,600	48	3,733	3,692	41
49	New Mexico	27,214	26,273	941	7,578	7,463	115	5,136	5,071	65	2,372	2,323	49
50	Arizona	16,174	13,904	2,270	3,393	3,055	338	2,202	2,058	144	1,137	943	194
51	Utah	29,414	28,401	1,013	8,698	8,624	74	3,657	3,630	27	4,824	4,783	41
52	Nevada	5,890	5,753	137	2,760	2,729	31	2,283	2,260	23	461	457	4
53	Idaho	27,489	26,780	709	7,814	7,758	56	4,103	4,083	20	3,653	3,618	35
54	Washington	61,113	59,159	1,954	17,455	16,848	607	10,964	10,441	523	5,940	5,863	77
55	Oregon	58,490	56,930	1,560	17,816	17,180	136	9,741	9,692	49	7,156	7,079	77
56	California	152,371	147,504	4,867	67,493	67,031	462	51,280	51,086	194	11,986	11,798	188
57	Alaska	367	354	13	.....	.....	.....	.....	.....	.....	.....	.....	.....
58	Hawaii	56,056	53,380	2,676	48,469	45,887	2,582	47,962	45,413	2,549	164	153	11

[1] Exclusive of 31 engaged in agricultural pursuits in the military and naval service of the United States.

ENGAGED IN SPECIFIED AGRICULTURAL PURSUITS, BY STATES AND TERRITORIES.

Twelfth Census of the United States.]

AGRICULTURAL LABORERS—continued.			DAIRYMEN AND DAIRYWOMEN.			FARMERS, PLANTERS, AND OVERSEERS.[2]									
Garden and nursery.						Total.			Farmers and planters.			Farmers (members of families).			
Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	
45,375	43,247	2,128	10,931	10,035	896	5,681,234	5,373,446	307,788	5,488,873	5,197,630	291,243	169,053	154,343	14,710	1
20,297	19,646	651	1,227	1,107	120	617,569	587,550	30,019	601,547	572,545	29,002	12,501	11,728	773	2
268	261	7	17	16	1	52,261	49,298	2,963	51,043	48,113	2,930	1,118	1,088	30	3
94	93	1	14	9	5	24,512	23,043	1,469	23,955	22,525	1,430	433	403	30	4
281	279	2	15	7	8	30,675	29,339	1,336	29,942	28,636	1,306	639	616	23	5
3,726	3,682	44	63	58	5	31,025	29,430	1,595	29,778	28,221	1,557	560	538	22	6
617	607	10	6	5	1	4,850	4,660	190	4,680	4,495	185	87	85	2	7
1,345	1,322	23	54	37	17	23,182	21,807	1,375	22,231	20,938	1,293	757	689	68	8
7,634	7,329	305	451	417	34	216,152	205,640	10,512	210,018	199,919	10,099	5,034	4,702	332	9
2,434	2,300	134	153	139	14	31,970	30,687	1,283	31,196	29,946	1,250	422	400	22	10
3,898	3,773	125	454	419	35	202,942	193,646	9,296	198,704	189,752	8,952	3,451	3,207	244	11
4,184	3,538	646	1,331	1,121	210	939,804	873,147	66,657	914,870	851,507	63,363	20,968	17,937	3,031	12
94	85	9	12	12	.....	9,676	9,360	316	9,385	9,081	304	135	127	8	13
1,272	968	304	400	370	30	42,814	40,564	2,250	41,399	39,270	2,129	951	848	103	14
177	174	3	132	117	15	226	217	9	211	203	8	8	7	1	15
932	689	243	131	121	10	158,910	146,746	12,164	154,927	143,025	11,902	3,109	2,913	196	16
203	186	17	189	161	28	89,936	85,105	4,831	87,737	83,032	4,705	2,067	1,989	78	17
383	368	15	84	61	23	221,427	205,353	16,074	216,062	200,724	15,338	4,787	4,111	676	18
223	195	28	59	44	15	153,294	139,749	13,545	149,594	136,767	12,827	2,978	2,279	699	19
660	639	21	237	164	73	224,898	210,590	14,308	218,069	204,721	13,348	5,864	4,941	923	20
240	234	6	87	71	16	38,723	35,563	3,160	37,486	34,684	2,802	1,069	722	347	21
10,512	10,065	447	3,434	3,172	262	2,210,357	2,125,701	84,656	2,127,344	2,047,283	80,061	76,715	72,901	3,814	22
2,438	2,370	68	792	699	93	269,407	256,238	13,169	260,539	248,041	12,498	7,893	7,406	487	23
832	792	40	488	474	14	220,028	211,134	8,894	212,363	203,984	8,379	7,076	6,639	437	24
2,233	2,145	88	587	555	32	267,949	257,790	10,159	258,713	249,003	9,710	8,349	7,988	361	25
933	870	63	140	135	5	202,408	194,607	7,801	196,562	189,061	7,501	5,270	5,013	257	26
861	797	64	131	111	20	168,743	161,927	6,816	164,414	157,991	6,423	3,958	3,617	341	27
480	467	13	233	227	6	157,496	152,094	5,402	151,937	146,872	5,065	5,011	4,716	295	28
657	637	20	269	259	10	234,328	227,482	6,846	224,721	218,346	6,375	9,039	8,666	373	29
1,184	1,133	51	443	420	23	293,534	279,672	13,862	280,486	267,129	13,357	12,233	11,821	412	30
38	38	.....	18	11	7	45,011	43,699	1,312	43,749	42,564	1,185	1,092	970	122	31
61	57	4	21	16	5	51,859	50,391	1,468	49,601	48,342	1,259	2,163	1,961	202	32
310	296	14	111	80	31	121,575	118,330	3,245	116,344	113,408	2,936	4,951	4,673	278	33
485	463	22	201	185	16	178,019	172,337	5,682	167,915	162,542	5,373	9,680	9,431	249	34
3,851	3,615	236	1,702	1,523	179	1,680,279	1,565,384	114,895	1,621,981	1,513,630	108,351	52,704	46,598	6,106	35
644	614	30	294	282	12	239,104	225,424	13,680	230,206	217,250	12,956	8,418	7,776	642	36
822	752	70	269	248	21	226,021	211,574	14,447	218,896	204,886	14,010	6,625	6,286	339	37
630	594	36	148	114	34	222,879	202,451	20,428	215,354	196,475	18,879	6,839	5,384	1,455	38
271	250	21	79	51	28	226,265	206,127	20,138	220,090	200,925	19,165	5,316	4,358	958	39
514	492	22	283	244	39	116,265	107,611	8,654	112,186	103,928	8,258	2,505	2,131	374	40
635	608	27	487	462	25	350,700	331,370	19,330	337,962	319,621	18,341	11,795	10,862	933	41
48	43	5	12	11	1	65,237	62,552	2,685	62,616	60,210	2,406	2,541	2,276	265	42
39	38	1	29	24	5	49,866	47,527	2,339	47,947	45,692	2,255	1,838	1,773	65	43
248	224	24	101	87	14	183,942	170,748	13,194	176,724	164,643	12,081	6,827	5,752	1,075	44
6,188	6,062	126	3,181	3,060	121	226,866	215,387	11,479	217,876	207,472	10,404	6,111	5,144	967	45
102	101	1	57	49	8	11,865	11,413	452	11,536	11,104	432	207	191	16	46
30	28	2	8	7	1	4,832	4,664	168	4,652	4,490	162	100	94	6	47
444	430	14	221	205	16	23,208	22,304	904	22,148	21,303	845	665	643	22	48
70	69	1	18	18	.....	11,044	10,556	488	10,740	10,275	465	275	255	20	49
54	54	.....	48	48	.....	8,003	6,583	1,420	6,918	6,228	690	1,039	310	729	50
217	211	6	82	65	17	17,027	16,152	875	16,566	15,710	856	433	418	15	51
16	12	4	41	41	.....	1,972	1,882	90	1,871	1,787	84	29	24	5	52
58	57	1	52	45	7	16,238	15,617	621	15,912	15,300	612	258	250	8	53
551	544	7	142	133	9	33,452	32,166	1,286	32,612	31,358	1,254	665	636	29	54
419	409	10	167	147	20	34,297	32,988	1,309	33,168	31,905	1,263	952	916	36	55
4,227	4,147	80	2,345	2,302	43	64,928	61,062	3,866	61,753	58,012	3,741	1,488	1,407	81	56
.....	.....	.....	5	5	.....	17	17	.....	17	17	.....	.....	.....	.....	57
343	321	22	51	47	4	6,342	6,260	82	5,238	5,176	62	54	35	19	58

[2] Exclusive of 23 in the military and naval service of the United States.

TABLE LXX.—NUMBER OF MALES AND FEMALES OVER 10 YEARS OF AGE JUNE 1, 1900,

[From division of population, Twelfth

	STATES AND TERRITORIES.	FARMERS, PLANTERS, AND OVERSEERS—continued.						GARDENERS, FLORISTS, NURSERYMEN, ETC.[1]					
		Farm and plantation overseers.			Milk farmers.			Total.			Gardeners.		
		Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.
1	The United States	18,101	16,517	1,584	5,207	4,956	251	62,417	59,555	2,862	37,181	35,981	1,200
2	North Atlantic division	2,859	2,638	221	662	639	23	20,615	19,963	652	12,492	12,320	172
3	Maine	90	87	3	10	10	.....	459	436	23	341	326	15
4	New Hampshire	120	111	9	4	4	.....	356	346	10	259	257	2
5	Vermont	93	86	7	1	1	.....	149	145	4	111	109	2
6	Massachusetts	596	582	14	91	89	2	2,889	2,829	60	1,803	1,789	14
7	Rhode Island	79	76	3	4	4	.....	624	613	11	449	447	2
8	Connecticut	178	165	13	16	15	1	1,119	1,098	21	751	749	2
9	New York	903	831	72	197	188	9	7,741	7,404	337	4,297	4,225	72
10	New Jersey	241	232	9	111	109	2	2,943	2,880	63	1,781	1,771	10
11	Pennsylvania	559	468	91	228	219	9	4,335	4,212	123	2,700	2,647	53
12	South Atlantic division	3,660	3,419	241	306	284	22	5,288	4,996	292	3,202	3,059	143
13	Delaware	56	52	4	.....	.....	.....	175	168	7	95	90	5
14	Maryland	396	380	16	68	66	2	1,436	1,363	73	971	939	32
15	District of Columbia	7	7	.....	.....	.....	.....	482	462	20	262	250	12
16	Virginia	802	740	62	72	68	4	662	633	29	493	479	14
17	West Virginia	118	70	48	14	14	.....	261	232	29	193	172	21
18	North Carolina	562	504	58	16	14	2	348	318	30	177	161	16
19	South Carolina	700	684	16	22	19	3	173	157	16	146	135	11
20	Georgia	882	852	30	83	76	7	437	405	32	283	267	16
21	Florida	137	130	7	31	27	4	1,314	1,258	56	582	566	16
22	North Central division	4,125	3,429	696	2,173	2,088	85	21,355	20,281	1,074	13,956	13,386	570
23	Ohio	525	359	166	450	432	18	4,266	4,082	184	2,701	2,608	93
24	Indiana	401	331	70	188	180	8	2,033	1,925	108	1,352	1,299	53
25	Illinois	577	501	76	310	298	12	4,161	3,959	202	2,544	2,454	90
26	Michigan	367	335	32	209	198	11	2,276	2,160	116	1,415	1,378	37
27	Wisconsin	321	271	50	50	48	2	1,145	1,089	56	814	782	32
28	Minnesota	283	246	37	265	260	5	1,085	1,030	55	742	712	30
29	Iowa	417	322	95	151	148	3	1,988	1,883	105	1,364	1,294	70
30	Missouri	465	386	79	350	336	14	2,323	2,190	133	1,573	1,484	89
31	North Dakota	165	160	5	5	5	.....	51	47	4	36	33	3
32	South Dakota	72	68	4	23	20	3	115	112	3	86	83	3
33	Nebraska	204	176	28	76	73	3	629	599	30	428	409	19
34	Kansas	328	274	54	96	90	6	1,283	1,205	78	901	850	51
35	South Central division	4,886	4,516	370	708	640	68	4,426	4,069	357	3,276	3,023	253
36	Kentucky	389	313	76	91	85	6	904	845	59	660	620	40
37	Tennessee	417	325	92	83	77	6	584	519	65	416	365	51
38	Alabama	555	491	64	131	101	30	386	349	37	272	247	25
39	Mississippi	825	814	11	34	30	4	429	371	58	376	333	43
40	Louisiana	1,427	1,415	12	147	137	10	746	704	42	620	592	28
41	Texas	776	727	49	167	160	7	903	851	52	621	594	27
42	Oklahoma	63	49	14	17	17	.....	119	112	7	71	64	7
43	Indian Territory	77	59	18	4	3	1	67	61	6	46	41	5
44	Arkansas	357	323	34	34	30	4	288	257	31	194	167	27
45	Western division	1,537	1,482	55	1,342	1,289	53	10,104	9,619	485	3,651	3,590	61
46	Montana	69	66	3	53	52	1	234	226	8	172	169	3
47	Wyoming	74	74	.....	6	6	.....	19	15	4	15	13	2
48	Colorado	114	97	17	281	261	20	928	902	26	622	616	6
49	New Mexico	19	18	1	10	8	2	116	111	5	99	95	4
50	Arizona	18	18	.....	28	27	1	109	109	.....	83	83	.....
51	Utah	24	20	4	4	4	.....	388	367	21	238	228	10
52	Nevada	69	68	1	3	3	.....	30	27	3	29	26	3
53	Idaho	42	41	1	26	26	.....	151	146	5	93	91	2
54	Washington	111	109	2	64	63	1	790	760	30	505	493	12
55	Oregon	67	59	8	110	108	2	853	818	35	405	399	6
56	California	930	912	18	757	731	26	6,486	6,138	348	1,390	1,377	13
57	Alaska	.....	.....	.....	.....	.....	.....	13	12	1	13	12	1
58	Hawaii	1,034	1,033	1	16	16	.....	616	615	1	591	591	.....

[1] Exclusive of 1 in the military and naval service of the United States.

ENGAGED IN SPECIFIED AGRICULTURAL PURSUITS, BY STATES AND TERRITORIES—Continued.

Census of the United States.]

GARDENERS, FLORISTS, NURSERYMEN, ETC.—cont'd.						LUMBERMEN, RAFTSMEN, AND WOOD CHOPPERS.[2]			STOCK RAISERS, HERDERS, AND DROVERS.[3]									
Florists and nurserymen.			Fruit growers.						Total.			Stock raisers.			Stock herders and drovers.			
Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	
16,848	15,711	1,137	8,388	7,863	525	108,454	108,241	213	85,463	83,516	1,947	37,707	36,626	1,081	47,756	46,890	866	1
7,389	6,946	443	734	697	37	18,124	18,099	25	1,266	1,260	6	241	236	5	1,025	1,024	1	2
106	98	8	12	12	.....	2,149	2,143	6	40	40	.....	8	8	.....	32	32	.....	3
92	84	8	5	5	.....	1,160	1,157	3	17	16	1	3	2	1	14	14	.....	4
34	32	2	4	4	.....	482	482	.....	39	39	.....	3	3	.....	36	36	.....	5
1,064	1,018	46	22	22	.....	859	859	.....	99	98	1	29	28	1	70	70	.....	6
168	159	9	7	7	.....	161	161	.....	5	5	.....	3	3	.....	2	2	.....	7
337	320	17	31	29	2	562	562	.....	12	12	.....	4	4	.....	8	8	.....	8
2,911	2,677	234	533	502	31	2,340	2,339	1	386	382	4	83	80	3	303	302	1	9
1,141	1,091	50	21	18	3	391	389	2	138	138	.....	53	53	.....	85	85	.....	10
1,536	1,467	69	99	98	1	10,020	10,007	13	530	530	.....	55	55	.....	475	475	.....	11
1,257	1,153	104	829	784	45	16,657	16,608	49	1,214	1,196	18	344	336	8	870	860	10	12
70	68	2	10	10	.....	81	81	.....	4	4	.....	2	2	.....	2	2	.....	13
416	377	39	49	47	2	576	574	2	104	102	2	22	21	1	82	81	1	14
220	212	8	.....	.....	.....	9	9	.....	20	20	.....	1	1	.....	19	19	.....	15
144	130	14	25	24	1	1,726	1,725	1	172	170	2	41	41	.....	131	129	2	16
49	42	7	19	18	1	2,460	2,457	3	53	53	.....	18	18	.....	35	35	.....	17
97	85	12	74	72	2	3,539	3,528	11	104	98	6	14	12	2	90	86	4	18
24	20	4	3	2	1	1,260	1,257	3	111	109	2	15	15	.....	96	94	2	19
122	111	11	32	27	5	3,875	3,855	20	157	156	1	20	20	.....	137	136	1	20
115	108	7	617	584	33	3,131	3,122	9	489	484	5	211	206	5	278	278	.....	21
5,314	4,937	377	2,085	1,958	127	28,790	28,743	47	19,208	18,856	352	9,068	8,849	219	10,140	10,007	133	22
1,169	1,098	71	396	376	20	1,302	1,301	1	373	372	1	123	122	1	250	250	.....	23
479	433	46	202	193	9	1,104	1,102	2	340	338	2	126	124	2	214	214	.....	24
1,278	1,187	91	339	318	21	1,400	1,393	7	3,358	3,283	75	276	275	1	3,082	3,008	74	25
421	390	31	440	392	48	9,484	9,473	11	300	298	2	36	36	.....	264	262	2	26
261	237	24	70	70	.....	5,954	5,943	11	165	163	2	47	46	1	118	117	1	27
271	252	19	72	66	6	5,293	5,287	6	416	411	5	98	97	1	318	314	4	28
398	371	27	226	218	8	647	647	.....	664	659	5	365	361	4	299	298	1	29
620	578	42	130	128	2	3,020	3,012	8	943	938	5	374	371	3	569	567	2	30
14	13	1	1	1	.....	29	29	.....	2,297	2,262	35	1,340	1,315	25	957	947	10	31
22	22	.....	7	7	.....	143	143	.....	3,941	3,856	85	2,589	2,510	79	1,352	1,346	6	32
153	147	6	48	43	5	190	190	.....	4,375	4,274	101	2,603	2,525	78	1,772	1,749	23	33
228	209	19	154	146	8	224	223	1	2,036	2,002	34	1,091	1,067	24	945	935	10	34
927	830	97	223	216	7	23,146	23,076	70	20,264	19,941	323	10,169	9,903	266	10,095	10,038	57	35
222	204	18	22	21	1	2,284	2,280	4	137	134	3	33	31	2	104	103	1	36
138	126	12	30	28	2	3,385	3,372	13	204	199	5	73	70	3	131	129	2	37
64	53	11	50	49	1	2,946	2,935	11	207	199	8	42	42	.....	165	157	8	38
45	30	15	8	8	.....	2,366	2,359	7	110	107	3	36	34	2	74	73	1	39
121	107	14	5	5	.....	4,253	4,236	17	231	222	9	92	85	7	139	137	2	40
211	189	22	71	68	3	2,843	2,834	9	16,337	16,075	262	8,427	8,199	228	7,910	7,876	34	41
38	38	.....	10	10	.....	81	81	.....	1,547	1,525	22	744	729	15	803	796	7	42
20	19	1	1	1	.....	503	500	3	1,306	1,298	8	629	622	7	677	676	1	43
68	64	4	26	26	.....	4,485	4,479	6	185	182	3	93	91	2	92	91	1	44
1,949	1,834	115	4,504	4,195	309	21,378	21,356	22	43,036	41,803	1,233	17,807	17,224	583	25,229	24,579	650	45
40	36	4	22	21	1	1,162	1,162	.....	6,354	6,311	43	2,396	2,362	34	3,958	3,949	9	46
4	2	2	.....	.....	.....	298	298	.....	4,880	4,840	40	1,712	1,678	34	3,168	3,162	6	47
176	164	12	130	122	8	602	602	.....	4,932	4,835	97	2,543	2,462	81	2,389	2,373	16	48
10	10	.....	7	6	1	328	326	2	8,107	7,777	330	2,585	2,437	148	5,522	5,340	182	49
14	14	.....	12	12	.....	432	431	1	4,148	3,640	508	1,340	1,224	116	2,808	2,416	392	50
73	67	6	77	72	5	167	166	1	2,985	2,969	16	1,033	1,023	10	1,952	1,946	6	51
.....	.....	.....	1	1	.....	147	147	.....	923	910	13	368	356	12	555	554	1	52
25	25	.....	33	30	3	701	701	.....	2,514	2,494	20	1,228	1,212	16	1,286	1,282	4	53
117	111	6	168	156	12	8,290	8,281	9	949	939	10	497	491	6	452	448	4	54
140	129	11	308	290	18	2,681	2,679	2	3,142	3,099	43	1,841	1,803	38	1,301	1,296	5	55
1,350	1,276	74	3,746	3,485	261	6,570	6,563	7	4,102	3,989	113	2,264	2,176	88	1,838	1,813	25	56
.....	.....	.....	.....	.....	.....	234	234	.....	58	47	11	.....	.....	.....	58	47	11	57
12	11	1	13	13	.....	125	125	.....	417	413	4	78	78	.....	339	335	4	58

[2] Exclusive of 1 in the military and naval service of the United States.

[3] Exclusive of 6 in the military and naval service of the United States.

TABLE LXX.—NUMBER OF MALES AND FEMALES OVER 10 YEARS OF AGE JUNE 1, 1900, ENGAGED IN SPECIFIED AGRICULTURAL PURSUITS, BY STATES AND TERRITORIES—Continued.

[From division of population, Twelfth Census of the United States.]

STATES AND TERRITORIES.	TURPENTINE FARMERS AND LABORERS.			OTHER AGRICULTURAL PURSUITS.								
				Total.			Apiarists.			Not specified.		
	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.
United States	24,737	24,456	281	5,606	5,359	247	1,375	1,324	51	4,231	4,035	196
North Atlantic states				928	894	34	208	201	7	720	693	27
Maine				21	21		2	2		19	19	
New Hampshire				9	9		1	1		8	8	
Vermont				17	17		6	6		11	11	
Massachusetts				101	94	7	5	5		96	89	7
Rhode Island				7	7					7	7	
Connecticut				20	16	4	3	3		17	13	4
New York				464	447	17	138	131	7	326	316	10
New Jersey				66	61	5	6	6		60	55	5
Pennsylvania				223	222	1	47	47		176	175	1
South Atlantic division	20,094	19,906	188	590	576	14	73	72	1	517	504	13
Delaware				28	28					28	28	
Maryland				90	83	7	4	4		86	79	7
District of Columbia				1	1					1	1	
Virginia				54	52	2	12	12		42	40	2
West Virginia				27	27		6	6		21	21	
North Carolina	503	502	1	13	11	2	5	5		8	6	2
South Carolina	1,466	1,446	20	4	4					4	4	
Georgia	10,870	10,768	102	27	27		16	16		11	11	
Florida	7,255	7,190	65	346	343	3	30	29	1	316	314	2
North Central division	1	1		2,520	2,423	97	425	404	21	2,095	2,019	76
Ohio				456	453	3	32	30	2	424	423	1
Indiana				242	238	4	17	17		225	221	4
Illinois				367	362	5	68	64	4	299	298	1
Michigan				327	308	19	71	67	4	256	241	15
Wisconsin				151	144	7	95	91	4	56	53	3
Minnesota				226	191	35	29	29		197	162	35
Iowa	1	1		257	251	6	55	51	4	202	200	2
Missouri				114	111	3	29	28	1	85	83	2
North Dakota				27	27		1	1		26	26	
South Dakota				29	29		1	1		28	28	
Nebraska				106	105	1	10	10		96	95	1
Kansas				218	204	14	17	15	2	201	189	12
South Central division	4,641	4,548	93	528	500	28	159		2	369	343	26
Kentucky				30	29	1	6	6		24	23	1
Tennessee				38	36	2	17	17		21	19	2
Alabama	2,963	2,913	50	13	13		4	4		9	9	
Mississippi	1,656	1,613	43	9	9		6	6		3	3	
Louisiana	22	22		185	117	18	4	4		131	113	18
Texas				176	174	2	103	101	2	73	73	
Oklahoma				39	39					39	39	
Indian Territory				65	60	5				65	60	5
Arkansas				23	23		19	19		4	4	
Western division	1	1		964	894	70	474	457	17	490	437	53
Montana				42	42		1	1		41	41	
Wyoming				52	52		1	1		51	51	
Colorado				188	177	11	71	68	3	117	109	8
New Mexico				23	22	1	9	8	1	14	14	
Arizona				41	38	3	36	33	3	5	5	
Utah				67	58	9	60	55	5	7	3	4
Nevada				17	17		15	15		2	2	
Idaho				19	19		2	2		17	17	
Washington				35	32	3	14	14		21	18	3
Oregon				34	19	15	9	9		25	10	15
California	1	1		446	418	28	256	251	5	190	167	23
Alaska				40	39	1				40	39	1
Hawaii				36	33	3	36	33	3			

NOTE.—For the further purpose of showing the close relation between the two sets of figures there is given in table LXXI, on following page, by geographic divisions, the number of farms as reported by the division of agriculture, and the number of farm families and of persons engaged as farmers, planters, or overseers, as returned by the division of population.

TABLE LXXI.—COMPARISON OF THE NUMBER OF FARMS, FARM FAMILIES, AND OCCUPATIONS, BY GEOGRAPHIC DIVISIONS.

GEOGRAPHIC DIVISIONS.	Number of farms.	Farm families.	Individuals in selected occupations.
United States	5,739,657	5,700,341	5,681,772
North Atlantic	677,506	675,776	617,569
South Atlantic	962,225	961,198	939,312
North Central	2,196,567	2,174,562	2,211,361
South Central	1,658,166	1,642,227	1,680,279
Western	242,908	245,138	226,866
Alaska and Hawaii	2,285	1,436	6,885

CHANGES OF TWENTY YEARS IN FARM TENURE.

Table LXXII presents, by geographic divisions, a summary of the number and per cent of farms operated by owners, cash tenants, and share tenants, at each of the three census years for which statistics of tenure have been compiled. In this table the four classes of "owners," "part owners," "owners and tenants," and "managers" are consolidated under the one head of "owners," to permit comparison with "owners" as reported in all preceding census years; the assumption being that the enumerators at that time reported as farms of owners all that were not operated for a cash rental or for a share of the products.

TABLE LXXII.—NUMBER AND PER CENT OF FARMS OPERATED BY OWNERS, CASH TENANTS, AND SHARE TENANTS, WITH PERCENTAGES, BY GEOGRAPHIC DIVISIONS: SUMMARY 1880 TO 1900.

YEAR.	Total number of farms.	NUMBER OF FARMS OPERATED BY—			PER CENT OF FARMS OPERATED BY—		
		Owners.	Cash tenants.	Share tenants.	Owners.	Cash tenants.	Share tenants.
The United States:							
1900	5,739,657	3,713,371	752,920	1,273,366	64.7	13.1	22.2
1890	4,564,641	3,269,728	454,659	840,254	71.6	10.0	18.4
1880	4,008,907	2,984,306	322,357	702,244	74.5	8.0	17.5
North Atlantic division:							
1900	677,506	536,724	66,361	74,421	79.2	9.8	11.0
1890	658,569	537,376	52,120	69,073	81.6	7.9	10.5
1880	696,139	584,847	49,011	62,281	84.0	7.0	9.0
South Atlantic division:							
1900	962,225	536,627	172,699	252,899	55.8	17.9	26.3
1890	749,600	461,057	96,098	192,445	61.5	12.8	25.7
1880	644,429	411,673	74,946	157,810	63.9	11.6	24.5
North Central division:							
1900	2,196,567	1,588,841	207,732	404,994	72.1	7.5	18.4
1890	1,928,822	1,474,086	147,248	302,488	76.6	9.7	15.7
1880	1,697,968	1,350,225	88,743	259,000	79.5	5.2	15.3
South Central division:							
1900	1,658,166	852,620	286,091	519,455	51.4	17.3	31.3
1890	1,086,772	668,972	151,901	265,899	61.5	14.0	24.5
1880	886,648	565,556	105,092	216,000	63.8	11.8	24.4
Western division:							
1900	242,908	202,596	18,782	21,530	83.4	7.7	8.9
1890	145,878	128,237	7,292	10,349	87.9	5.0	7.1
1880	83,723	72,005	4,565	7,153	86.0	5.5	8.5
Alaska and Hawaii:							
1900	2,285	963	1,255	67	42.1	54.9	3.0

In the decade 1880 to 1890 the number of farms operated by owners increased from 2,984,306 to 3,269,728, a gain of 285,422, or 9.6 per cent. In the last decade the increase was 443,643, or 13.6 per cent. The gain from 1880 to 1900 was 729,065, or 24.4 per cent. In the same period the number of cash tenants increased from 322,357 to 752,920, a gain of 430,563, or 133.6 per cent, and share tenants increased in number from 702,244 to 1,273,366, a gain of 571,122, or 81.3 per cent. The actual increase in farm owners was greater than that in either class of farm tenants, but was only 72.8 per cent of the total increase in both classes.

As a result of this greater relative increase in the number of tenants, the per cent of farms operated by owners decreased in both decades since 1880, but most markedly since 1890. In 1880, 74.5 per cent of all farms were operated by owners; in 1890, 71.6 per cent; and in 1900, 64.7 per cent, a relative loss in 20 years of 13.3 per cent. The opposite movement is recorded in the percentages of cash and share tenants. The former class operated 8.0 per cent of all farms in 1880, 10.0 per cent in 1890, and 13.1 per cent in 1900. The per cent of share tenants increased from 17.5 in 1880 to 18.4 in 1890, and to 22.2 in 1900. Combining the two classes, it is seen that the tenant-operated farms increased from 25.5 per cent in 1880 to 35.3 per cent in 1900, a relative gain of 38.4 per cent as compared with the relative decrease of 13.3 per cent in the per cent of farms operated by owners.

A change of the same essential character took place between 1880 and 1900 in each of the five geographic divisions. The relative number of owners everywhere decreased and that of cash and share tenants increased, the share tenants in a less degree than the cash tenants. The change of this character which took place in the decade 1880 to 1890 attracted great attention. It was taken for granted almost universally that the number of tenants was increasing at the expense of the number of owners, and that the movement expressed by the increase of tenancy was an ill omen for the republic.

That there is another way of viewing the changes here recorded, and that in some respects the popular conclusion overlooks some very important social facts, is evidenced by the point brought out in the discussion of the figures of tables LXV and LXVI that the farms operated by owners have increased faster since 1850 than the agricultural population. Such an increase can only be possible providing the increase in the number of tenants has been by the elevation of former wage employees to the position of farm tenants. Such an increase in the number of tenants has been by recruits from the ranks of wage employees and not from farm owners or their children. The class of owners has increased faster than the portion of the families of former owners who have remained on farms, and the same is true of the tenant class. The correctness

of the conclusions stated in the discussion of tables LXV and LXVI is evidenced by the changes in the agricultural population shown by the occupation tables for the three census years included in table LXXII.

CHANGES IN FARM POPULATION AND FARM TENURE.

Table LXXIII presents a number of important facts deduced from the occupation tables included in table LXXI, when compared with the corresponding tables of the Tenth and Eleventh census reports. In making use of the tables of the two reports consideration should be given to the following fact: The Twelfth Census included in its tabulation of those engaged in agricultural pursuits a total of 853,257 males under 16 years of age. This number does not include those under that age who were reported as woodchoppers, lumbermen, or raftsmen. The corresponding number reported by the Eleventh Census was 243,798. In ten years there was an increase of 250 per cent, while the increase in the number of all employees above 16 years of age was only 12.6 per cent. The difference in the two percentages is unquestionably due to the inclusion of the children of farmers as farm laborers in 1900, which ought always to have been done, provided they were actually employed.

The probable number added in 1900 as the result of this change in the occupation table of agriculture may be ascertained approximately by allowing for the employees under 16 a per cent of increase equal to that for those above that age. This would give to those under 16 engaged in agriculture, exclusive of those classed as lumbermen and wood choppers, a total of 274,517, or 578,740 less than the number reported. Deducting this number from the total, exclusive of wood choppers, lumbermen, and raftsmen, reported in 1900, there is left of all ages 8,771,181, the number of males engaged in agriculture in 1900, to correspond with the totals reported in 1880 and in 1890. In all cases where comparisons of this sort are made in this report, the lumbermen and wood choppers are excluded from the tables of occupation as printed by the division of population, as all schedules reporting lumbering operations were rejected from the farm schedules.

Table LXXIII presents a summary of the relative changes in the various classes of farm population, as compared with the changes since 1880 in the number of farms operated by owners and by tenants. Allowance is made in the table for the change above noted in the reported number of children under 16 years of age.

TABLE LXXIII.—NUMBER OF ALL FARMS AND OF THOSE OPERATED BY OWNERS AND BY TENANTS, NUMBER OF MALES EMPLOYED IN AGRICULTURE AND THE NUMBER OF SUCH MALES IN EXCESS OF THE NUMBER OF FARMS, WITH PROPORTIONAL NUMBER: SUMMARY 1880 TO 1900.

CENSUS YEAR.	NUMBER OF FARMS.			MALES EMPLOYED IN AGRICULTURE.		NUMBER TO 1,000 MALES IN AGRICULTURE OF—		
	Total.	Operated by—		Total.	In excess of number of farms.	Farms of—		Persons not owners or tenants.
		Owners.	Tenants.			Owners.	Tenants.	
1900	5,739,657	3,713,371	2,026,286	[1] 8,771,181	[1] 3,031,524	423	231	346
1890	4,564,641	3,269,728	1,294,913	7,787,539	3,222,898	420	166	414
1880	4,008,907	2,984,306	1,024,601	7,075,983	3,067,076	422	145	433

[1] Exclusive of wood choppers, lumbermen, raftsmen, and children reported in 1900, but not by previous censuses.

In preparing the foregoing table it is assumed that the number of men working on farms in any capacity other than that of farm owners or tenants is the number of all male workers less the number of farm operators. This is not exactly correct, since, as may be seen in table LXX, there are many women who conduct farms as owners or tenants. If it were possible to make allowance for the number of such women, the class of individuals reported as engaged in agriculture other than as farm owners or tenants would show a greater decrease since 1880 than is indicated by the table.

Accepting the figures of the table as an approximate statement of the relative number of farm owners, tenants, and other males employed on the farms at the several census years, the following changes are noted: In 1880 for every 1,000 males at work on farms there were 422 owners; in 1890, 420; and in 1900, 423. There was a fluctuation by decades, but no marked change in the twenty years. For the tenants it was otherwise. In 1880 they numbered 145 in every 1,000; in 1890, 166; and in 1900, 231. There is here seen the same great relative increase in the number of tenants as is shown in table LXII, but not associated in this instance with any reduction in the relative number of farm owners.

If now we turn to the class of persons engaged in agriculture other than as owners and tenants, including the male members of the families of the farm operators, as well as their hired men, it is seen that where there were 433 such persons in every 1,000 of agricultural population in 1880, there were only 414 in 1890, and 346 in 1900. This marked decrease clearly indicates that the gain in the number of farm tenants has been due to recruits drawn from the ranks of wage laborers, and not from the rank of farm owners.

TABLE LXXIV.—NUMBER OF MALES ENGAGED IN AGRICULTURE, AND NUMBER OF FARMS WITH PERCENTAGES OF INCREASE BY DECADES, BY STATES AND TERRITORIES: SUMMARY 1870 TO 1900.

STATES AND TERRITORIES.	MALES ENGAGED IN AGRICULTURE.							NUMBER OF FARMS.						
	1900		1890		1880		1870	1900		1890		1880		1870
	Total.	Per cent of increase.	Total.	Per cent of increase.	Total.	Per cent of increase.	Total.	Total.	Per cent of increase.	Total.	Per cent of increase.	Total.	Per cent of increase.	Total.
The United States	[1] 9,349,922	20.1	7,787,539	10.1	7,075,983	28.1	5,525,503	5,739,657	25.7	4,564,641	13.9	4,008,907	50.7	2,659,985
North Atlantic division	1,021,630	[2] 3.4	1,057,334	2.2	1,034,656	2.5	1,009,623	677,506	2.9	658,569	[2] 5.7	696,139	15.7	601,595
Maine	71,648	[2] 7.0	77,045	[2] 6.3	81,887	(3)	81,956	59,299	[2] 4.6	62,013	[2] 3.7	64,309	7.5	59,804
New Hampshire	36,067	[2] 11.4	40,690	[2] 8.9	44,299	[2] 5.1	46,562	29,324	0.6	29,151	[2] 10.4	32,181	8.6	29,642
Vermont	47,870	[2] 9.2	52,698	[2] 4.4	55,037	[2] 5.2	57,889	33,104	1.6	32,573	[2] 9.1	35,522	5.0	33,827
Massachusetts	63,810	[2] 6.4	68,178	5.3	64,746	[2] 12.4	72,756	37,715	9.7	34,374	[2] 11.7	38,406	44.9	26,500
Rhode Island	*10,512*	[2] *7.6*	*11,375*	*4.3*	*10,910*	[2] *7.9*	*11,767*	*5,498*	(3)	*5,500*	[2] *13.0*	*6,216*	*15.8*	*5,368*
Connecticut	42,685	[2] 3.8	44,349	[2] 0.1	43,936	[2] 0.1	43,523	26,948	2.3	26,350	[2] 16.1	30,598	20.0	25,508
New York	361,280	[2] 6.4	386,114	2.9	375,213	0.5	373,455	226,720	0.2	226,223	6.6	241,058	11.5	216,253
New Jersey	66,646	[2] 0.2	66,754	13.5	58,819	[2] 7.0	62,943	34,650	12.4	30,828	[2] 11.3	34,307	11.9	30,652
Pennsylvania	321,112	3.5	310,131	3.4	299,809	15.9	258,772	224,248	6.0	211,557	[2] 0.9	213,542	22.7	174,041
South Atlantic division	1,681,015	19.2	1,410,090	4.1	1,354,382	24.7	1,086,075	962,225	28.4	749,600	16.3	644,429	72.3	374,102
Delaware	18,413	3.4	17,801	1.1	17,609	10.7	15,907	9,687	3.3	9,381	7.2	8,749	14.9	7,615
Maryland	91,440	3.9	88,021	[2] 1.3	89,176	12.6	79,197	46,012	12.8	40,798	0.7	40,517	50.1	27,000
District of Columbia	1,431	[2] 14.2	1,668	15.4	1,445	7.0	1,350	269	[2] 42.0	382	[2] 13.9	435	108.1	209
Virginia	275,869	14.6	240,827	0.8	238,951	4.8	228,082	167,886	31.6	127,600	7.7	118,517	60.5	73,849
West Virginia	143,685	24.5	115,433	7.9	106,980	45.1	73,725	92,874	27.6	72,773	16.1	62,674	57.6	39,778
North Carolina	381,659	22.2	312,399	[2] 0.6	314,228	30.4	241,010	224,637	25.9	178,359	13.2	157,609	68.4	93,565
South Carolina	277,357	17.0	237,039	13.6	208,672	41.3	147,708	155,355	35.1	115,008	22.5	93,864	80.9	51,889
Georgia	418,675	21.9	343,344	4.1	329,856	25.8	262,152	224,691	31.3	171,071	23.4	138,626	98.2	69,956
Florida	72,486	35.3	53,558	12.8	47,465	28.5	36,944	40,814	19.2	34,228	46.0	23,438	128.9	10,241
North Central division	*3,380,046*	*12.5*	*3,003,519*	*11.2*	*2,701,408*	*33.1*	*2,029,047*	*2,196,567*	*14.2*	*1,923,822*	*13.3*	*1,697,968*	*50.9*	*1,125,078*
Ohio	398,608	2.6	388,640	[2] 1.9	396,120	(2)	396,267	276,719	10.1	251,430	1.7	247,189	26.1	195,953
Indiana	331,738	6.2	312,256	[2] 5.6	329,614	23.8	266,319	221,897	12.0	198,167	2.1	194,013	20.3	161,289
Illinois	449,221	7.6	417,479	[2] 3.9	433,796	15.6	375,407	264,151	9.8	240,681	[2] 6.3	255,741	26.1	202,803
Michigan	294,086	9.8	267,943	11.9	239,346	28.0	187,036	203,261	17.9	172,344	11.9	154,008	55.1	98,786
Wisconsin	255,507	14.1	223,922	15.2	194,380	22.8	158,300	169,795	16.0	146,409	9.0	134,322	30.5	102,904
Minnesota	246,842	33.8	184,417	41.0	130,817	75.2	74,603	154,059	32.4	116,851	26.5	92,386	98.7	46,500
Iowa	362,825	15.7	313,484	3.7	302,171	44.0	209,907	228,622	13.2	201,903	8.9	185,351	59.4	116,292
Missouri	444,303	18.4	375,331	6.7	351,681	33.9	262,595	284,886	19.7	238,043	10.4	215,575	45.3	148,328
North Dakota[4]	69,820	62.3	43,021	51.7	28,368	1,024.8	2,522	45,332	64.2	27,611	58.4	17,435	913.7	1,720
South Dakota[5]	80,553	20.7	66,729	135.2	.....	.....	.....	52,622	4.9	50,158	187.7	.....	.....	.....
Nebraska	182,148	9.4	166,531	85.3	89,881	289.4	23,083	121,525	7.0	113,608	79.2	63,387	[4] 15.3	12,301
Kansas	264,395	8.5	243,766	18.8	205,234	181.5	72,918	173,098	3.9	166,617	20.2	138,561	262.7	38,202
South Central division	2,785,435	40.3	1,984,973	9.8	1,807,531	39.7	1,293,793	1,658,166	52.6	1,086,772	22.6	886,648	73.5	510,998
Kentucky	387,946	26.4	306,868	[2] 2.8	315,445	22.5	257,426	234,667	30.9	179,264	7.7	166,453	40.6	118,422
Tennessee	376,071	23.3	305,093	10.7	275,620	11.2	247,959	224,623	28.8	174,412	5.3	165,650	40.2	118,141
Alabama	383,800	32.9	288,814	[2] 0.9	291,477	28.5	226,768	223,220	41.5	157,772	16.1	135,864	101.6	67,382
Mississippi	360,192	33.8	269,208	6.7	252,324	30.2	193,725	220,803	53.0	144,318	41.8	101,772	49.6	68,023
Louisiana	223,378	23.3	181,101	22.7	147,538	28.8	114,530	115,969	67.4	69,294	43.5	48,292	69.6	28,481
Texas	582,560	47.7	394,355	19.5	330,125	116.2	152,722	352,190	54.4	228,126	31.0	174,184	185.0	61,125
Oklahoma	91,432	572.9	13,587	.....	(6)	(6)	(6)	62,495	608.1	8,826	.....	(6)	(6)	(6)
Indian Territory	86,394	.....	(6)	(6)	(6)	(6)	(6)	45,505	.....	(6)	(6)	(6)	(6)	(6)
Arkansas	293,662	30.0	225,947	15.9	195,002	93.7	100,669	178,694	43.2	124,760	32.1	94,433	91.1	49,424
Western division	428,421	29.2	331,623	36.3	178,006	66.4	106,965	242,908	66.5	145,878	74.2	83,723	73.7	48,212
Montana	26,987	99.8	13,506	199.9	4,504	113.5	2,110	18,370	138.6	5,603	268.9	1,519	78.5	851
Wyoming	12,879	64.2	7,845	379.8	1,635	897.0	164	6,095	95.0	3,125	583.3	457	161.1	175
Colorado	43,145	19.4	36,134	168.4	13,462	108.3	6,462	24,700	50.7	16,389	263.7	4,506	159.3	1,738
New Mexico	25,947	13.7	22,816	62.7	14,025	[2] 31.4	18,432	12,311	176.2	4,458	[2] 13.3	5,053	12.8	4,480
Arizona	13,473	108.0	6,477	89.2	3,423	166.6	1,284	5,809	307.4	1,426	85.9	767	345.9	172
Utah	28,235	45.3	19,437	34.3	14,470	38.9	10,417	19,387	84.3	10,517	11.3	9,452	92.6	4,908
Nevada	5,606	10.9	5,056	21.9	4,146	101.0	2,063	2,184	71.0	1,277	[2] 9.9	1,404	35.5	1,036
Idaho	*26,079*	*100.3*	*13,022*	*238.5*	*3,847*	*163.1*	*1,462*	*17,471*	*164.6*	*6,603*	*250.3*	*1,885*	*355.3*	*414*
Washington	50,878	37.7	36,937	190.6	12,709	238.1	3,759	38,202	88.9	18,056	176.6	6,529	108.8	3,127
Oregon	54,251	24.2	43,682	61.8	27,000	104.0	13,232	35,837	40.4	25,530	57.4	16,217	113.7	7,587
California	140,941	11.2	126,711	60.8	78,785	65.6	47,580	72,542	37.1	52,894	47.2	35,934	51.5	23,724
Alaska	120	.....	(6)	(6)	(6)	(6)	(6)	12	(6)	(6)	(6)	(6)	(6)	(6)
Hawaii	53,255	.....	(6)	(6)	(6)	(6)	(6)	2,273	(6)	(6)	(6)	(6)	(6)	(6)

[1] Exclusive of lumbermen, woodchoppers, and raftsmen.
[2] Decrease.
[3] Decrease of less than one-tenth of 1 per cent.
[4] Dakota territory prior to 1890.
[5] Included in Dakota territory prior to 1890.
[6] No report.

Table LXXIV gives a different presentation, by states and territories, of the facts shown in table LXXIII. It shows the relative increase since 1870 in the number of farms and in the number of males engaged in agriculture. This table makes no allowance for the 853,257 males under 16 years of age, 578,740 of whom were included in the enumeration of children of farmers in 1900, but not in preceding years. It was impossible to secure these figures by states and territories. If allowance be made for this fact, the number of males in agriculture would show an increase from 1890 to 1900 of 12.6 per cent, instead of 20.1 per cent as given in the table. The gain in the number of males in agriculture, if reported on the same basis, measures very nearly the increase in farm population from one census to another. Table LXXIV shows that in each decade the number of farms increased more rapidly than the number of males in agriculture, thus indicating that the increased number of farm operators are recruited from within the agricultural population and not from outside sources. More people leave the farms for cities than go to the farms from cities and from foreign countries.

In the three decades the number of farms, and the number of males engaged in agriculture, or, in other words, the agricultural population, increased as follows: From 1870 to 1880 the number of farms increased 50.7 per cent, and the number of males engaged in agricultural occupation, 28.1 per cent; from 1880 to 1890 the farms increased 13.9 per cent, while the agricultural population increased 10.1 per cent; and in the last decade the number of farms increased 25.7 per cent, and the number of males in agriculture, 20.1 per cent, if all the children reported in 1900 be included; but only 12.6 per cent, or about one-half the increase in the number of farms, if children be excluded, so that the number of males employed in agriculture corresponds with those reported in previous census years.

The general conclusion to be drawn from the consideration of all these facts is that there is a progressive upward movement on farms by which the children of farm owners and tenants succeed to the places of their parents or rise to higher positions, and that in many instances the wage laborer on the farm becomes in time either a farm tenant or an owner.

FARM TENURE AND AGE OF FARMERS.

Table LXXV presents a complete exhibit showing the progress of this upward movement at different age periods. The figures are compiled from the tables of the population division giving the age classification of the persons owning and hiring their farm homes, and the age classification of all engaged in agriculture. The small number of heads of families classed as unknown, so far as the question of ownership or tenure is concerned, is omitted, as such omission does not modify the results and its inclusion would necessitate a very complex table that would be less valuable than the one given.

TABLE LXXV.—HEADS OF FARM FAMILIES AND OTHER EMPLOYEES ON FARMS, JUNE 1, 1900, CLASSIFIED ACCORDING TO AGE PERIODS, WITH AGGREGATES AND PERCENTAGES FOR EACH AGE PERIOD AND CLASS OF FARM WORKER.

AGE PERIODS.	Total employed on farms.	HEADS OF FAMILIES WITH—		Employees other than farm owners or tenants.	PER CENT OF ALL IN AGE GROUP.				PER CENT OF ALL IN CLASS OF WORKERS.			
		Owned farms.	Hired farms.		Total.	Owners.	Tenants.	Others.	Total.	Owners.	Tenants.	Others.
All ages	[1] 10,329,734	3,639,360	2,010,959	4,679,415	100.0	35.2	19.5	45.3	100.0	100.0	100.0	100.0
10 to 15	1,060,515	76,442	198,696	3,304,202	100.0	2.1	5.6	92.3	34.7	2.1	9.9	70.6
16 to 24	2,815,825											
25 to 34	2,047,872	541,237	653,505	853,130	100.0	26.4	31.9	41.7	19.8	14.9	32.5	18.2
35 to 44	1,696,857	908,514	501,689	286,654	100.0	53.5	29.6	16.9	16.4	24.9	24.9	6.1
45 to 54	1,422,790	916,606	379,839	126,345	100.0	64.4	26.7	8.9	13.8	25.2	18.9	2.7
55 to 64	928,305	683,646	181,345	63,314	100.0	73.7	19.5	6.8	9.0	18.8	9.0	1.4
65 and over	628,703	505,548	89,989	33,166	100.0	80.4	14.3	5.3	6.1	13.9	4.5	0.7
Age unknown	25,867	7,367	5,896	12,610	100.0	28.5	22.8	48.7	0.2	0.2	0.3	0.3

[1] Exclusive of wood choppers, lumbermen, and raftsmen.

In the age period under 15 years no persons are reported as owning or cultivating farms. In the age period under 25 there were 3,304,202 persons working on farms and not at domestic service, who were neither farm owners nor tenants. They were either wage employes or the children of the farmers in whose homes they resided and worked. They constituted 92.3 per cent of the whole, while the number operating farms as owners was only 76,442, and constituted only 2.1 per cent of the total of the age group.

In the age period of 25 to 34 years the number of persons operating farms as owners constituted 26.4 per cent of all, the tenants 31.9 per cent, and the others engaged in agriculture 41.7 per cent.

When the age period of 35 to 44 years is reached the owners are in the majority, having increased both actually and relatively. The tenants have decreased in actual as well as in relative number, and the third class shows very marked decreases both actually and relatively. The per cent of owners was 53.5, that of tenants, 29.6, and of others, 16.9. The class of owners evidently received recruits from both of the others. The children of the owners succeeded to the places of their parents, and thus the class of owners was directly recruited from the "others." Some tenants also became owners and their places were taken by their children or by former wage-earners.

The change is a progressive one through all the age

periods. Of the persons on farms at the most advanced age period, that of 65 years and over, 80.4 per cent are operating farms as owners, 14.3 per cent are tenants, and only 5.3 per cent are employed in other capacities. The evidence of the upward movement is here very marked. Judging from the number of farms relative to the agricultural population in 1850 it appears probable that at that time the number of agriculturists 65 years of age and over who were not owners constituted at least 30 per cent of the total, and probably exceeded that proportion. At least one-half the heads of families of all ages were either slaves or wage employes, while the figures of table LXXVIII make it plain that to-day not more than 15 per cent of the heads of farm families are engaged in agriculture, except as owners or tenants.

The second series of percentages in table LXXV is in some respects more striking than that to which reference has been made. The number of farm owners under 25 years constituted, in 1900, only 2.1 per cent of the total number of farm owners, and the number under 35 only 17.0 per cent of the total. The tenants under 35 constituted 42.4 per cent of all tenants, while of the other workers on the farm, the same age period included 88.8 per cent of all reported. Both series show the advancement of the wage employes and children of farmers, first to tenancy, and, with advancing years, more and more to farm ownership.

ACREAGE OF FARMS OF SPECIFIED TENURES.

Table LXXVI gives the acreage of all farms and the acreage of improved and unimproved land in farms of six specified tenures, together with percentages and averages.

TABLE LXXVI.—ACRES OF ALL LAND AND OF IMPROVED LAND, JUNE 1, 1900, IN GROUPS OF FARMS CLASSIFIED BY TENURE.

FARMS CLASSIFIED BY TENURE.	Total.	Improved.	Per cent improved.	AVERAGE.	
				All land.	Improved land.
Total	841,201,546	414,793,191	49.3	146.6	72.3
Owners	422,354,923	216,055,395	51.2	134.1	68.6
Part owners	124,956,065	56,745,743	45.4	276.7	125.7
Owners and tenants	9,152,280	5,441,941	59.5	171.7	102.1
Managers	89,665,821	11,178,861	12.5	1,514.3	188.8
Cash tenants	77,360,463	42,596,859	55.1	102.7	56.6
Share tenants	117,711,994	82,774,392	70.3	92.4	65.0

In the discussion of table XXXVII the fact was pointed out that farms operated by owners, or for them by managers, were relatively most numerous among farms of greater areas and values, and the reverse among those of smaller areas and values, and that the opposite was true for tenant-operated farms. As regards area, the figures of table LXXVI substantiate the above statements.

The four groups of farms—those of owners, part owners, owners and tenants, and managers—numbered 3,713,371, and comprised 646,129,089 acres, of which 289,421,940 were improved. The two classes of tenant-operated farms numbered 2,026,286, comprising 195,072,457 acres, of which 125,371,251 were improved. The four classes of owned farms had an average area of 174.0 acres, while the tenant farms had an average area of only 96.3 acres. The average size of the farms of owners, therefore, was nearly twice that of the farms of tenants. It should be noted, however, that the difference between the average area of improved land in rented and in owned farms is much less marked, that for the four classes of owned farms being 77.9 acres, and that for the two classes of rented farms, 61.4 acres, or only 21.2 per cent less.

The average area of farms operated by owners was 134.1 acres, while the average of all farms was 146.6 acres. Those operated by part owners averaged 276.7 acres; by owners and tenants, 171.7 acres; managers, 1,514.3 acres; cash tenants, 102.7 acres; and share tenants, 92.4 acres.

The average area of improved land in all farms was 72.3 acres; for farms of owners, 68.6 acres; part owners, 125.7 acres; owners and tenants, 102.1 acres; managers, 188.8 acres; cash tenants, 56.6 acres; and share tenants, 65.0 acres. The farms of owners, cash tenants, and share tenants, constituting in the aggregate 90.2 per cent of the total number of farms, did not vary greatly in average acreage of improved land, all having materially less than the groups of farms operated by part owners, owners and tenants, and managers.

The per cent of improved land included in the area of the several groups of different tenures varied widely. It was greatest for share tenants, 70.3 per cent, and least for managers, 12.5 per cent. For the farms of owners and tenants it was 59.5 per cent; of owners, 51.2 per cent; and of part owners, 45.4 per cent. The greatest number of farms operated by managers and by part owners was in the West and South, where the large livestock and grain farms, generally operated under one or the other of these two tenures, were located. In these sections of the country the per cent of improved land was small, the farms being utilized for those agricultural purposes which do not require intensive soil cultivation. In the Western division 11.0 per cent of the land in managed farms was improved, and in the South Central, only 4.0 per cent. In the same geographic divisions the percentages of farms operated by part owners were 30.2 and 17.2, respectively.

The per cent of improved land in farms operated by share tenants was greater, in all parts of the country, than that in farms of owners and managers. The two percentages, however, show the widest variation in the South Atlantic and South Central divisions. In the former, the farms of share tenants had 56.0 per cent of improved land; those of cash tenants, 49.7 per cent; those of owners, 39.7 per cent; and those of managers,

37.2 per cent. In the South Central division the farms of share tenants had 64.5 per cent of improved land; those of cash tenants, 41.3 per cent; those of owners, 35.3 per cent; and those of managers, 4.0 per cent.

The very high per cent of improved land in the tenant farms of the South arises from the fact that land in that section is leased mainly for raising crops. Originally, great areas of land in the South were held in large plantations and operated by slave labor. After emancipation that form of labor was superseded by some form of contract leasehold, by which the former slaves or wage laborers were given charge of small tracts of improved land, upon which they were to raise crops. The tracts thus leased included only the improved land of the old plantations, while the land retained by the plantation owners was mostly unimproved. This explains the exceptionally high per cent of improved land in farms of tenants and the correspondingly low per cent in those of owners and managers. The same general relation between the lands of owners and tenants exists in all parts of the country. A large proportion of tenant farms are but parts of larger farms once operated by their owners, who, with advancing years, lease the larger portion of their cultivable land to tenants, retaining the woodland and partially improved lands as their own farms.

Plate 14 shows the relation of farms owned and farms leased, by states and territories.

VALUE OF FARMS OF SPECIFIED TENURES.

Table LXXVII gives the number of farms of six specified tenures, together with the total value of all farm property, and the average value of the same per farm and per acre.

TABLE LXXVII.—TOTAL VALUE, AND AVERAGE VALUE PER FARM AND PER ACRE, OF ALL FARM PROPERTY, JUNE 1, 1900, FOR FARMS OF SPECIFIED TENURES.

FARMS CLASSIFIED BY TENURE.	Number of farms.	VALUE OF ALL FARM PROPERTY.		
		Total.	Average.	
			Per farm.	Per acre.
All farms	5,739,657	$20,514,001,838	$3,574	$24.39
Owners	3,149,344	11,029,293,472	3,502	26.11
Part owners	461,515	2,477,915,092	5,488	19.88
Owners and tenants	53,299	249,400,035	4,679	27.25
Managers	59,213	1,125,786,321	19,012	12.56
Cash tenants	752,920	2,259,623,906	3,001	29.21
Share tenants	1,273,366	3,371,983,012	2,648	28.65

The average value per farm of the farm property in the hands of owners, part owners, owners and tenants, and managers was $4,007, while that of cash and share tenants was only $2,778, or 69.3 per cent as much. This variation is no greater than might be expected in view of the facts disclosed in the discussion of table XXXVII concerning the per cent of owned and rented farms of various sizes and values. The average value per acre for the four groups of owned farms was $23.03, and for the two groups of rented farms, $28.87, showing the higher state of cultivation of land tilled by tenants.

Land is not usually rented until it is somewhat improved. The new land in the West is always taken up by owners, and it is impossible to rent such land, except for grazing purposes, until some of it has been improved. The fact that the land operated by owners was less valuable per acre than that operated by tenants reflects, therefore, the present state of improvement of such land rather than its natural character. The average value per acre was highest for farms of cash tenants and lowest for managed farms, due to the large area of cheap, unimproved land found in the farms of that group in the West and South.

Table LXXVIII gives for each of the groups of farms classified by tenure the per cent of the total value of all farm property in each of the four specified forms thereof.

TABLE LXXVIII.—PER CENT OF THE VALUE OF ALL FARM PROPERTY, IN FOUR SPECIFIED FORMS THEREOF, JUNE 1, 1900, IN GROUPS OF FARMS CLASSIFIED BY TENURE.

FARMS CLASSIFIED BY TENURE.	Farm land (exclusive of buildings).	Buildings.	Implements and machinery.	Live stock.
The United States	100.0	100.0	100.0	100.0
Owners	51.0	62.9	57.7	54.0
Part owners	12.5	9.1	11.0	14.0
Owners and tenants	1.2	1.3	1.2	1.2
Managers	5.2	4.0	6.1	8.1
Cash tenants	12.1	8.9	9.1	9.5
Share tenants	18.0	13.8	14.9	13.2

Cash tenants operated 13.1 per cent of all farms, but the average values of the land, buildings, implements, and live stock on their farms were less than the corresponding averages for the farms of any other tenure, excepting share tenants. The farms operated by them contained only 12.1 per cent of the value of all farm land, 8.9 per cent of the value of all buildings, 9.1 per cent of the value of all implements and machinery, and 9.5 per cent of the value of all live stock. The farms operated by share tenants constituted 22.2 per cent of all farms, but had only 18.0 per cent of the value of all farm land, 13.8 per cent of that of buildings, 14.9 per cent of that of implements and machinery, and 13.2 per cent of that of live stock.

These percentages stand in marked contrast to those for managed farms, which constituted only 1.0 per cent of all farms, but 5.2 per cent of the total value of farm land, 4.0 per cent of that of buildings, 6.1 per cent of that of implements and machinery, and 8.1 per cent of that of all live stock on farms. The farms operated by owners and tenants constituted 0.9 per cent of all farms, but represented 1.2 per cent of the value of all farm land, 1.3 per cent of that of buildings, 1.2 per cent of that of all implements and machinery, and 1.2 per cent of that of all live stock.

The part owners operated 7.9 per cent of all farms, but the value of land in those farms was equal to 12.5 per cent of that of all farm land; buildings, 9.1 per cent; implements and machinery, 11.0 per cent; and live stock, 14.0 per cent; consequently for each of these three groups, part owners, owners and tenants, and managers, the percentages of the value of land, buildings, implements and machinery, and live stock were greater than the per cent of the total number of farms operated by them. For farms of owners, the percentages of the value of buildings, implements and machinery, and live stock, were greater than those for the total number of farms, and that of land was less. Owners cultivated 54.9 per cent of all farms, the land in which had a value equal to 51.0 per cent of the value of all farm land; buildings, 62.9 per cent; implements and machinery, 57.7 per cent; and live stock, 54.0 per cent.

Table LXXIX shows the value of farm land and buildings, with the per cent of the total of such values in buildings.

TABLE LXXIX.—VALUE OF FARM LAND AND BUILDINGS, JUNE 1, 1900, AND PER CENT IN BUILDINGS, FOR FARMS OF SPECIFIED TENURES.

FARMS CLASSIFIED BY TENURE.	Total.	Land with improvements (except buildings).	Buildings.	Per cent in buildings.
All farms	$16,674,690,247	$13,114,492,056	$3,560,198,191	21.4
Owners	8,927,771,780	6,689,830,390	2,237,941,390	25.1
Part owners	1,963,256,775	1,637,645,845	325,610,930	16.6
Owners and tenants	203,390,530	157,826,960	45,563,570	22.4
Managers	829,382,367	688,505,739	140,876,628	17.0
Cash tenants	1,898,871,955	1,580,542,754	318,329,201	16.8
Share tenants	2,852,016,840	2,360,140,368	491,876,472	17.2

The most noteworthy facts disclosed by this table are the high percentages for owned farms and those of owners and tenants; the former being 25.1 and the latter 22.4, while those for other forms of tenure range from 16.6 for farms of part owners to 17.2 for those of share tenants. Farm buildings are frequently constructed to satisfy the fancy of the owner rather than as an investment from which he hopes to secure profit. As a rule, this is not the case with farms operated by tenants, since the buildings on such farms are more often built with a view to profit than from any sentimental consideration. Hence, the lower proportional values for rented farms given in table LXXIX.

Table LXXX gives the number of farms of six specified tenures, the number and per cent of those with buildings, and the average value of land and buildings.

TABLE LXXX.—NUMBER OF FARMS, JUNE 1, 1900, AND NUMBER AND PER CENT OF THOSE WITH BUILDINGS, WITH AVERAGE VALUE OF LAND AND OF BUILDINGS, FOR FARMS OF SPECIFIED TENURES.

FARMS CLASSIFIED BY TENURE.	NUMBER OF FARMS.			AVERAGE VALUE OF—			
				Land.		Buildings.	
	Total.	With buildings.	Per cent with buildings.	Per farm.	Per acre.	Per farm.	Per farm with buildings.
Total	5,739,657	5,537,731	96.5	$2,285	$15.59	$620	$643
Owners	3,149,344	3,078,665	97.8	2,124	15.84	711	727
Part owners	451,515	444,617	98.5	3,627	13.11	721	732
Owners and tenants	53,299	52,602	98.7	2,961	17.24	855	866
Managers	59,213	55,325	93.4	11,627	7.68	2,379	2,546
Cash tenants	752,920	716,602	95.2	2,099	20.83	423	444
Share tenants	1,273,366	1,189,920	93.4	1,854	20.05	386	413

The relative number of farms with buildings was less for the tenant-operated farms than for those operated by or for owners. For cash tenants the per cent of such farms was 95.2; for share tenants, 93.4; for owners, 97.8; for part owners, 98.5; for owners and tenants, 98.7; and for managers, 93.4. The very low ratio for managers was unquestionably due to their operating a large number of sheep ranches, upon many of which there were no buildings. The buildings on managed farms, when reported, show a very high value per farm but a low value per acre. The average per farm was nearly three times that for any other group of farms by tenure, and over six times that for farms of share tenants.

In table LXXXI are shown the total and average values per farm and per acre of implements and machinery on farms of specified tenures.

TABLE LXXXI.—TOTAL VALUE, AND AVERAGE VALUE PER FARM AND PER ACRE, OF FARM IMPLEMENTS AND MACHINERY, JUNE 1, 1900, FOR FARMS OF SPECIFIED TENURES.

FARMS CLASSIFIED BY TENURE.	Number of farms.	VALUE OF IMPLEMENTS AND MACHINERY.			
		Total.	Average.		Per cent of value of land.
			Per farm.	Per acre.	
Total	5,739,657	$761,261,550	$133	$0.90	5.8
Owners	3,149,344	439,125,805	139	1.04	6.6
Part owners	451,515	83,872,360	186	0.67	5.1
Owners and tenants	53,299	9,032,330	169	0.99	5.7
Managers	59,213	46,642,300	788	0.52	6.8
Cash tenants	752,920	69,012,225	92	0.89	4.4
Share tenants	1,273,366	113,576,530	89	0.96	4.8

The average values of implements and machinery per farm and per acre vary in general correspondence with those of land. The average per farm was lowest for farms of share and cash tenants, $89 and $92, respectively, and highest for farms of managers, $788. The average for all farms was $133; for farms of owners, $139; part owners, $186; and owners and tenants, $169. The average per acre was low for farms of part owners and managers, being $0.67 and $0.52, respectively. For farms of owners it was $1.04; for those of owners and tenants, $0.99; for those of cash tenants, $0.89; and for those of share tenants, $0.96; while the average for all farms was $0.90.

Implements and machinery were most valuable, in proportion to value of land, on managed farms, their value being 6.8 per cent of that of the land; while for owners, the corresponding per cent was 6.6; for owners and tenants, 5.7; for part owners, 5.1; for share tenants, 4.8; and for cash tenants, 4.4. The great tracts of cheap land in the managed farms gave them a very low average value per acre, and consequently a high value of implements as compared with other forms of farm property.

Table LXXXII gives the number of farms, the value of all live stock, and the average value per farm and per acre, for farms of specified tenures.

TABLE LXXXII.—TOTAL VALUE, AND AVERAGE VALUE PER FARM AND PER ACRE, OF LIVE STOCK, JUNE 1, 1900, FOR FARMS CLASSIFIED BY TENURE.

FARMS CLASSIFIED BY TENURE.	Number of farms.	VALUE OF ALL LIVE STOCK.		
		Total.	Average.	
			Per farm.	Per acre.
All farms	5,739,657	$3,078,050,041	$536	$3.66
Owners	3,149,344	1,662,395,887	528	3.94
Part owners	451,515	430,785,957	954	3.45
Owners and tenants	63,299	36,977,175	694	4.04
Managers	59,213	249,761,654	4,218	2.79
Cash tenants	752,920	291,739,726	387	3.77
Share tenants	1,273,366	406,389,642	319	3.45

The very high average value per farm, and the low average per acre of live stock on farms of managers, reflect the location and character of such farms, a large proportion of them, as has been already pointed out, being live-stock farms located in the West or Southwest, with land of less than average value per acre. The average value of live stock per acre does not vary greatly for the other forms of tenure, and the averages per farm correspond quite closely with the average areas.

STATISTICS OF FARMS OF MIXED TENURES.

Table 20 presents, by states and territories, the most important facts connected with farms of mixed tenures. These farms are of two classes: (1) those operated by part owners, and (2) those operated by owners and tenants. Table LXXXIII gives, by geographic divisions and by race of farmer, summaries of the number of farms of part owners, and the total and average areas of owned and of rented land in such farms.

TABLE LXXXIII.—NUMBER OF FARMS, JUNE 1, 1900, OPERATED BY WHITE AND COLORED FARMERS WHO OWN A PART AND RENT A PART OF THE SAME, TOGETHER WITH THE NUMBER OF ACRES OWNED AND LEASED, BY GEOGRAPHIC DIVISIONS.

A.—ALL FARMS.

GEOGRAPHIC DIVISIONS.	Number of farms.	ACRES.		AVERAGE NUMBER OF ACRES.	
		Owned.	Rented.	Owned.	Rented.
The United States	451,515	63,020,557	61,935,508	139.6	137.2
North Atlantic	27,207	1,920,469	1,582,313	70.6	58.2
South Atlantic	46,899	3,069,741	1,828,403	65.5	39.0
North Central	266,405	32,184,666	29,025,021	120.8	109.0
South Central	86,469	16,963,071	18,832,135	196.2	217.8
Western	24,396	8,814,436	10,558,547	361.3	432.8
Alaska and Hawaii	139	68,174	109,089	490.5	784.8

B.—FARMS OF WHITE FARMERS.

The United States	420,916	61,816,572	60,875,220	146.9	144.6
North Atlantic	27,061	1,916,373	1,578,036	70.8	58.3
South Atlantic	32,597	2,679,489	1,496,684	82.2	45.9
North Central	264,574	32,105,201	28,939,203	121.3	109.4
South Central	72,574	16,293,044	18,377,903	224.5	253.2
Western	24,069	8,764,893	10,422,709	364.2	433.0
Alaska and Hawaii	41	57,602	60,685	1,404.9	1,480.1

C.—FARMS OF COLORED FARMERS.

The United States	30,599	1,203,985	1,060,288	39.3	34.7
North Atlantic	146	4,096	4,277	28.1	29.3
South Atlantic	14,302	390,252	331,719	27.3	23.2
North Central	1,831	79,465	85,818	43.4	46.9
South Central	13,895	670,057	454,232	48.2	32.7
Western	327	49,543	135,838	151.5	415.4
Alaska and Hawaii	98	10,572	48,404	107.9	493.9

By comparing the average areas of owned land, as given in the foregoing table, with the corresponding averages of land in farms of owners, as given in Table 2, a number of striking differences are disclosed. In the United States as a whole, the average farm of an owner contained 134.1 acres, while the owned land in a farm of a part owner averaged 139.6 acres, or 4.1 per cent more. In the North Atlantic division the average area of the owned farms was 89.9 acres, while the owned land of the part owners averaged only 70.6 acres. The same general relation prevailed in the South Atlantic division, where the owned farms averaged 132.8 acres,

and the owned land in the farms of part owners averaged only 65.5 acres, or less than one-half as much. The North Central division showed conditions that more nearly approximated those for the country as a whole. The average area of owned farms was 128.6 acres, and the average area of owned land in farms of part owners was 120.8 acres. In the remaining divisions, the owned land in farms of part owners considerably exceeded the average area of owned farms. In the South Central division the averages were 196.2 and 156.3 acres, respectively, and in the Western, 361.3 and 208.4 acres. In Hawaii the owned land in farms of part owners averaged 490.5 acres, and that in farms of owners, 359.3 acres.

In the South Central and Western divisions and in Hawaii, where the land in farms of part owners was largely used for the keeping of sheep and cattle, the area of rented land exceeded that of owned land. In the South Atlantic and North Atlantic divisions the reverse was true.

The average for farms of white farmers does not vary much from that for all farms. The farms of colored farmers are of smaller average area than those of white farmers, but show a relatively larger proportion rented except in the South Central and in the South Atlantic divisions, where the area of rented land was less than that of owned land.

Table LXXXIV gives a summary of that portion of Table 20 which relates to farms of owners and tenants.

TABLE LXXXIV.—TOTAL AND AVERAGE NUMBER OF ACRES OWNED AND LEASED, IN FARMS OPERATED BY WHITE AND COLORED OWNERS AND TENANTS, JUNE 1, 1900, BY GEOGRAPHIC DIVISIONS.

GEOGRAPHIC DIVISIONS.	WHITE OWNERS AND TENANTS.			COLORED OWNERS AND TENANTS.		
	Number of farms.	Acres.		Number of farms.	Acres.	
		Total.	Average per farm.		Total.	Average per farm.
The United States..	51,717	9,003,212	174	1,582	149,068	94
North Atlantic.....	6,326	794,196	126	6	276	46
South Atlantic.....	5,589	959,679	172	484	34,781	72
North Central	25,885	4,603,882	178	135	15,513	115
South Central.....	12,487	2,138,238	171	917	89,549	98
Western.....	1,430	507,217	355	40	8,999	225
Alaska and Hawaii.....	.....	.....	.....	.....	.....	.....

The total area of the farms of owners and tenants was 9,152,280 acres, of which 98.4 per cent were operated by white farmers and the remainder by colored. Over one-half of the area contained in these farms was in the North Central division, and nearly one-fourth in the South Central.

Some of the managed farms contained land which was leased by the owners. No reports were secured or tabulated from managed farms that would separate the owned from the leased land, and therefore no statistics of such land appear in the general tables of this report.

OWNERSHIP OF RENTED FARMS.

SOURCES OF INFORMATION AND METHODS OF WORK.

As required by the act of Congress, the name of the occupant of each farm was placed on his farm schedule by the enumerator. Blank spaces for the names and post-office addresses of the owners of rented farms were also provided. These were generally reported, and the result is embodied in Tables 21 to 25, inclusive. The first step in the preparation of these tables was to transfer from the schedules to a specially prepared card the name and post-office address of the owner of each rented farm. There were also entered thereon the acreage and value of the farm and the tenure of the farmer. Later the cards for each state were arranged by post-offices, and all those bearing the same name as owner were fastened together.

Whenever two or more cards were found showing owners with the same surname but with different initials, steps were taken to ascertain if they represented the same individual. If the post-office was that of a small town, the population schedules were examined, and if only one individual of the surname on the cards was enumerated, the cards were treated as pertaining to the same individual; but if on the population schedules two or more similar names were found corresponding to those on the cards, they were classed as those of distinct individuals. Examination of the population schedules sufficed to determine three-fourths of the cases of uncertainty concerning the identity of names. In other doubtful cases correspondence with the parties in question generally brought satisfactory results. Letters were also written whenever the spaces for the name and post-office address of the owner gave those of the agent instead of the owner.

There were involved in the work a few elements of possible error. It is possible, even probable, that some agents were classed as owners, but, except in the cases of individuals with large holdings scattered in various parts of the country, no material error resulted from such erroneous reports, as there are more agents who have care of two or more farms belonging to different owners, than different agents representing the same owner. In view of the precautions taken, the cards as tabulated doubtless indicated the ownership of rented farms with a high degree of accuracy.

In the first sorting of cards, they were arranged to ascertain the ownership according to states, counties, and post-offices. They were separated into four groups, representing the following classes of owners: (1) Owners who resided in the county in which their rented farms were situated; (2) those who did not reside in the county in which their rented farms were located, but who did reside in the same state; (3) those who resided outside of the state; and (4) the cards representing the farms for which the names and post-office addresses of the owners were not given. After sorting the cards

into these groups, and combining all that represented the same owners, the cards were tabulated and the results are given in Tables 21 and 22.

The cards representing the farms of owners who were not residents of the state in which their farms were located, were assorted and tabulated according to the geographic divisions in which the owners resided, and the results are shown in Table 21, which gives a statement of the number of rented farms and number of owners of such farms, in and for the states where the farms were located.

After this tabulation had been completed, there was a further arrangement of the cards. All representing owners residing in the state in which their farms were located were assorted by post-offices so as to combine all cards pertaining to the same owner. After all the cards had been thus assorted, those relating to owners who did not reside in the state in which their farms were located were combined, thus leaving them distributed according to residence of owner. After having been arranged in this manner, the cards were divided into seven groups denoting the number of farms owned by the individual, and those of each group were then assorted and tabulated according to the size and value of farms. The results are presented in Tables 23 to 25, inclusive.

The schedules for Alaska and Hawaii were printed before plans were made for an investigation concerning the ownership of rented farms, and did not contain blank spaces on which to report the names and addresses of owners of such farms.

NUMBER, ACREAGE, AND VALUE OF RENTED FARMS.

The farms in the United States that were operated by cash and share tenants, including those of Alaska and Hawaii, numbered 2,026,286. They comprised 195,072,457 acres, and had a value, including buildings, of $4,750,888,795. Of these farms, 752,920 were operated by cash tenants and 1,273,366 by share tenants. Complete statistics of these farms, by race and tenure, are given, by states and territories, in Tables 12, 13, and 14. Excluding Alaska and Hawaii, the number of farms operated by tenants was 2,024,964. A summary of these facts, by geographic divisions, is given in table LXXXV.

TABLE LXXXV.—NUMBER, ACREAGE, AND VALUE OF RENTED FARMS, BY GEOGRAPHIC DIVISIONS.

GEOGRAPHIC DIVISIONS.	NUMBER OF FARMS.			Total acres.	Total value.
	Total.	Operated by cash tenants.	Operated by share tenants.		
The United States[1]	2,024,964	751,665	1,273,299	195,033,537	$4,748,426,170
North Atlantic	140,782	66,361	74,421	14,758,977	652,396,670
South Atlantic	426,598	172,699	252,899	31,910,026	364,676,040
North Central	612,726	207,782	404,994	79,059,602	2,834,872,310
South Central	805,546	286,091	519,455	55,705,213	633,786,013
Western	40,312	18,782	21,530	13,599,719	262,695,137

[1] Exclusive of Alaska and Hawaii.

The largest number of rented farms was reported from the South Central division, in which were 286,091 cash tenants and 519,455 share tenants. The average area of these farms was less than the general average for the United States, and their average value per acre was also smaller. The total area of rented farms in the South Central division was exceeded by that for the North Central division, and the total value of such farms by that for both the North Central and North Atlantic divisions.

Of the rented farms in the United States, the names and post-office addresses of the owners of 1,934,346, or 95.5 per cent, were reported, leaving 90,618, or 4.5 per cent, not reported. The farms for which the desired information was not reported were somewhat larger and more valuable on an average than the rented farms for which the information was furnished. Hence the per cent of acres and values of rented farms with owners not reported is higher than the per cent of the number of such farms, being 5.3 for the acreage, and 4.7 for the value. This information, expressed in percentages, is given in table LXXXVI for each of the geographic divisions.

TABLE LXXXVI.—PER CENT OF THE NUMBER, ACREAGE, AND VALUE OF RENTED FARMS, WITH OWNERS REPORTED, AND OF THOSE NOT REPORTED, BY GEOGRAPHIC DIVISIONS.

GEOGRAPHIC DIVISIONS.	WITH OWNERS REPORTED.			WITH OWNERS NOT REPORTED.		
	Farms.	Acres.	Value.	Farms.	Acres.	Value.
The United States	95.5	94.7	95.3	4.5	5.3	4.7
North Atlantic	95.2	96.0	95.7	4.8	4.0	4.3
South Atlantic	96.7	96.6	96.3	3.3	3.4	3.7
North Central	94.1	93.9	95.1	5.9	6.1	4.9
South Central	96.3	94.9	96.2	3.7	5.1	3.8
Western	91.4	92.6	92.8	8.6	7.4	7.2
Alaska and Hawaii[1]	.....	.....	.....	.....	.....	.....

[1] No report received.

The desired information relating to rented farms was reported most fully from the South Atlantic division, and least from the Western, the per cent not reported being 3.3 in the former, and 8.6 in the latter.

Table LXXXVII presents a summary of the results obtained from the first sorting and tabulating of the cards. The detailed results of that tabulation are embodied in Table 22, which gives, by states and territories, the number, acreage, and value of the rented farms whose owners reside in the county in which their farms are located; of farms whose owners reside in the state, but not in the county in which their farms are located; farms whose owners are nonresidents of the state; and farms for which the names and post-office addresses of owners were not reported.

TABLE LXXXVII.—NUMBER, ACREAGE, AND VALUE OF RENTED FARMS, AND PER CENT OF SUCH FARMS, IN SPECIFIED GROUPS CLASSIFIED BY RESIDENCE OF OWNERS WITH RESPECT TO THE COUNTY IN WHICH THE FARMS ARE LOCATED, BY GEOGRAPHIC DIVISIONS.

A.—ALL FARMS.

GEOGRAPHIC DIVISIONS.	Number of farms.	Acres.	Value.	Per cent.[1]
The United States	2,024,964	195,033,537	$4,748,426,170	100.0
North Atlantic	140,782	14,758,977	652,396,670	100.0
South Atlantic	425,598	31,910,026	364,676,040	100.0
North Central	612,726	79,059,602	2,834,872,310	100.0
South Central	805,546	55,705,213	635,786,013	100.0
Western	40,312	13,599,719	262,695,137	100.0
Alaska and Hawaii[2]	.....	.....	.....	.....

B.—FARMS WITH OWNERS RESIDING IN COUNTY IN WHICH FARMS ARE LOCATED.

The United States	1,523,863	129,621,758	$3,384,728,753	75.2
North Atlantic	106,975	11,170,588	503,639,371	76.0
South Atlantic	330,902	22,465,392	266,690,618	77.8
North Central	426,259	51,062,552	1,988,008,876	69.6
South Central	634,844	37,612,430	473,088,837	78.8
Western	24,883	7,310,796	153,301,051	61.7
Alaska and Hawaii[2]	.....	.....	.....	.....

C.—FARMS WITH OWNERS RESIDING IN STATE BUT NOT IN COUNTY IN WHICH FARMS ARE LOCATED.

The United States	307,656	38,717,085	$823,390,204	15.2
North Atlantic	20,342	2,254,526	94,330,552	14.5
South Atlantic	64,672	6,254,210	57,678,679	15.2
North Central	105,430	14,985,693	493,958,095	17.2
South Central	107,985	10,789,766	101,207,550	13.4
Western	9,227	4,432,890	76,215,328	22.9
Alaska and Hawaii[2]	.....	.....	.....	.....

D.—FARMS WITH OWNERS RESIDING OUTSIDE STATE IN WHICH FARMS ARE LOCATED.

The United States	102,827	16,319,347	$316,180,168	5.1
North Atlantic	6,644	741,238	26,227,295	4.7
South Atlantic	15,828	2,100,473	26,951,599	3.7
North Central	44,614	8,154,191	213,424,112	7.3
South Central	33,014	4,475,927	35,198,130	4.1
Western	2,727	847,518	14,379,032	6.8
Alaska and Hawaii[2]	.....	.....	.....	.....

E.—FARMS WITH OWNERS NOT REPORTED.

The United States	90,618	10,375,347	$224,127,045	4.5
North Atlantic	6,821	592,625	28,199,452	4.8
South Atlantic	14,196	1,089,951	13,355,144	3.3
North Central	36,423	4,857,166	139,481,227	5.9
South Central	29,703	2,827,090	24,291,496	3.7
Western	3,475	1,008,515	18,799,726	8.6
Alaska and Hawaii[2]	.....	.....	.....	.....

[1] The percentages of the number of farms in group A that are found in groups B, C, D, and E.
[2] No reports received relating to the subject.

Of the 1,934,346 farms in the United States for which the names and post-office addresses of the owners were reported, the owners of 1,523,863, or 78.8 per cent, resided in the same county in which their farms were located; 307,656, or 15.9 per cent, in the same state but not in the same county; and 102,827, or 5.3 per cent, outside of the state. Many residing in the same state, but not in the same county, had homes very near their rented farms. This was notably the case with farms located near county lines. Such owners can hardly be classed as nonresidents, and the very small per cent of rented farms owned by nonresident landlords would have been still further reduced if it had been practicable to exclude such owners.

The Western division had the smallest proportion of rented farms whose owners resided in the county where their rented farms were located, and this fact probably accounts for the comparatively large number of farms in that division for which the names and post-office addresses of the owners were not reported. The South Central and South Atlantic divisions had the largest proportion of owners residing in the county where their rented farms are located, and to this fact is due the small per cent of farms with owners not reported in those divisions.

The large average area and value of rented farms in the Western division the owners of which were not reported, compared with the number of such farms, merely reflect the fact that the average area and value of rented farms is greatest in that division.

The North Central division had the largest, and the Western the next largest, proportion of rented farms with owners residing outside of the state.

The first sorting and combination of cards with reference to the county and state in which the farms were located showed 1,282,836 owners for the 1,934,346 farms with owners reported. Of these, 1,224,917 resided in the state in which their rented farms were located, and 57,919 were nonresidents. After the "out-of-state" cards had been distributed in the states and localities where the owners resided and all possible further combinations made, the number of owners was reduced from 1,282,836 to 1,257,716, as given in Tables 23, 24, and 25.

RENTED FARMS CLASSIFIED BY NUMBER OF FARMS POSSESSED BY INDIVIDUAL OWNERS.

The results of the final sorting of the cards and their tabulation by place of residence of owners, the number of farms, acres of land, and value of farms, are given in Tables 23, 24, and 25, by states and territories. A summary of Table 23 by geographic divisions and residence of owners is given in table LXXXVIII. An analysis of the facts contained in that summary is given by percentages in table LXXXIX.

TABLE LXXXVIII.—NUMBER OF OWNERS OF SPECIFIED NUMBERS OF FARMS, WITH AVERAGE NUMBER OF FARMS, ACRES, AND VALUE OF RENTED LAND OWNED BY EACH, BY GEOGRAPHIC DIVISIONS AND FOREIGN COUNTRIES IN WHICH OWNERS RESIDE.

A.—OWNERS OF ONE FARM.

GEOGRAPHIC DIVISIONS AND FOREIGN COUNTRIES.	Owners.	AVERAGE.		
		Number of farms.	Acres in farms.	Value of farms.
Grand total	1,006,168	1.0	114.4	$3,006
The United States	1,005,469	1.0	114.3	3,005
North Atlantic	116,830	1.0	110.6	4,458
South Atlantic	162,787	1.0	82.4	1,100
North Central	419,900	1.0	127.6	4,504
South Central	274,357	1.0	91.9	916
Western	31,485	1.0	311.1	5,684
Alaska and Hawaii	110	1.0	180.7	3,700
Foreign countries	699	1.0	207.6	4,683

B.—OWNERS OF TWO FARMS.

Grand total	142,886	2.0	177.1	$4,524
The United States	142,838	2.0	177.1	4,523
North Atlantic	6,917	2.0	271.1	11,854
South Atlantic	35,922	2.0	137.1	1,573
North Central	39,124	2.0	254.9	9,854
South Central	58,825	2.0	123.0	1,532
Western	2,047	2.0	627.1	15,574
Alaska and Hawaii	3	2.0	212.3	4,003
Foreign countries	48	2.0	384.5	8,892

C.—OWNERS OF THREE AND UNDER FIVE FARMS.

Grand total	67,743	3.3	257.2	$5,597
The United States	67,719	3.3	256.8	5,583
North Atlantic	1,582	3.2	457.2	19,840
South Atlantic	19,971	3.3	224.7	2,386
North Central	12,070	3.3	428.9	16,455
South Central	33,430	3.3	185.2	2,368
Western	665	3.3	1,227.9	31,959
Alaska and Hawaii	1	4.0	600.0	18,600
Foreign countries	24	3.5	1,171.1	42,833

D.—OWNERS OF FIVE AND UNDER TEN FARMS.

Grand total	28,702	6.6	446.6	8,208
The United States	28,694	6.6	446.5	8,207
North Atlantic	419	7.4	829.8	28,649
South Atlantic	9,547	6.2	417.0	4,037
North Central	3,127	6.8	848.8	32,792
South Central	15,345	6.7	398.7	4,365
Western	256	5.9	2,471.8	60,202
Alaska and Hawaii	.....	.....	.....	.....
Foreign countries	8	5.9	767.5	11,843

E.—OWNERS OF TEN AND UNDER TWENTY FARMS.

Grand total	8,978	12.9	854.0	14,740
The United States	8,966	12.9	852.8	14,706
North Atlantic	115	12.9	1,596.6	69,140
South Atlantic	2,475	13.0	826.1	7,449
North Central	551	12.8	1,718.1	73,521
South Central	5,743	12.9	700.1	9,268
Western	82	11.6	5,495.0	143,067
Alaska and Hawaii	.....	.....	.....	.....
Foreign countries	7	12.0	2,364.4	57,323

F.—OWNERS OF TWENTY FARMS AND OVER.

Grand total	3,244	35.1	1,958.9	32,699
The United States	3,241	35.1	1,957.6	32,670
North Atlantic	53	39.9	4,058.2	62,667
South Atlantic	704	29.7	1,965.3	22,208
North Central	122	35.5	4,834.6	127,539
South Central	2,332	36.6	1,625.4	27,127
Western	30	29.5	12,182.8	270,256
Alaska and Hawaii	.....	.....	.....	.....
Foreign countries	3	29.0	3,368.0	64,381

TABLE LXXXIX.—PER CENT OF THE NUMBER, ACREAGE, AND VALUE, AND NUMBER OF OWNERS OF RENTED FARMS, CLASSIFIED BY NUMBER OF FARMS OWNED, BY GEOGRAPHIC DIVISIONS AND FOREIGN COUNTRIES IN WHICH THE OWNERS RESIDE.

A.—NUMBER OF RENTED FARMS.

GEOGRAPHIC DIVISIONS AND FOREIGN COUNTRIES.	1 farm.	2 farms.	3 and under 5 farms.	5 and under 10 farms.	10 and under 20 farms.	20 farms and over.
The United States[1]	50.0	14.8	11.6	9.7	6.0	5.9
North Atlantic	82.0	9.7	3.6	2.2	1.0	1.5
South Atlantic	39.3	17.4	16.1	14.3	7.8	5.1
North Central	73.7	13.7	6.9	3.7	1.2	0.8
South Central	35.8	15.4	14.5	13.4	9.7	11.2
Western	76.6	10.0	5.3	3.7	2.3	2.1
Alaska and Hawaii	91.7	5.0	3.3	.....	.....	.....
Foreign countries	63.7	8.7	7.7	4.3	7.7	7.9

B.—ACREAGE OF RENTED FARMS.

The United States[1]	62.3	13.7	9.4	7.0	4.2	3.4
North Atlantic	79.4	11.5	4.5	2.2	1.1	1.3
South Atlantic	44.4	16.3	14.8	13.2	6.7	4.6
North Central	73.5	13.7	7.1	3.6	1.3	0.8
South Central	48.8	14.0	12.0	10.1	7.8	7.3
Western	73.4	9.6	6.1	4.8	3.4	2.7
Alaska and Hawaii	94.1	3.0	2.9	.....	.....	.....
Foreign countries	64.7	8.2	12.5	2.7	7.4	4.5

C.—VALUE OF RENTED FARMS.

The United States[1]	66.9	14.3	8.4	5.2	2.9	2.3
North Atlantic	79.2	12.5	4.8	1.8	1.2	0.5
South Atlantic	50.3	15.9	13.4	10.8	5.2	4.4
North Central	71.8	14.6	7.6	3.9	1.5	0.6
South Central	41.6	14.9	13.1	11.1	8.8	10.5
Western	66.9	11.9	8.0	5.8	4.4	3.0
Alaska and Hawaii	93.0	2.7	4.3	.....	.....	.....
Foreign countries	60.4	7.9	19.0	1.7	7.4	3.6

D.—THE NUMBER OF OWNERS OF RENTED FARMS.

The United States[1]	80.0	11.4	5.4	2.3	0.7	0.2
North Atlantic	92.8	5.5	1.3	0.3	0.1	(2)
South Atlantic	70.4	15.5	8.6	4.1	1.1	0.3
North Central	88.4	8.2	2.6	0.7	0.1	(2)
South Central	70.3	15.1	8.6	3.9	1.5	0.6
Western	91.1	5.9	1.9	0.8	0.2	0.1
Alaska and Hawaii	96.5	2.6	0.9	.....	.....	.....
Foreign countries	88.6	6.1	3.0	1.0	0.9	0.4

[1] Per cent for foreign countries was less than one-tenth of 1 per cent.
[2] Less than one-tenth of 1 per cent.

The farms reported with owners residing in foreign countries numbered 1,097. They had a total acreage of 224,505, and a value of $5,417,183. Their average acreage was 204.6, while that for all rented farms was 95.5. Their average value was $4,938, while that for all rented farms was $2,339.

Of the owners of these farms, 324, owning 367 farms, resided in Canada; 190, with 308 farms, resided in Great Britain and Ireland; 39, with 100 farms, in France; 55, with 68 farms, in Mexico; 30, with 38 farms, in Germany; 4, with 35 farms, in Austria; 14, with 25 farms, in Cuba; 22, with 22 farms, in Norway; 18, with 19 farms, in Switzerland; and 93, with 115 farms, in other foreign countries.

Of the owners residing in foreign countries, 699 owned but 1 farm each; 48 owned 2; 24 owned 3 or 4;

8 owned from 5 to 9; 7 owned from 10 to 19; and 3 owned 20 or more farms each, making a total of 789 foreign land owners possessing the 1,097 farms.

More than the above number of farms were owned by persons who actually reside in foreign countries. Upon the cards were recognized the names of individuals residing abroad but maintaining for various purposes a legal residence in the United States. Such farms were all reported from the owner's legal residence. The tables, therefore, do not give complete information concerning the number of farms owned by those domiciled abroad, but constitute a statement of the ownership by legal and not actual residence.

Of the 1,257,716 individual land owners whose names and post-office addresses were reported, 1,006,168, or 80.0 per cent, owned only 1 farm; 142,886, or 11.4 per cent, owned 2; 67,743, or 5.4 per cent, owned 3 or 4; 28,702, or 2.3 per cent, owned 5 and less than 10; 8,973, or 0.7 per cent, owned 10 and less than 20; and 3,244, or 0.2 per cent, owned 20 or more farms each. The average number of farms owned by each of this last class was 35.1, the owner with the largest number having 704, with a reported area of 98,358 acres, and a total value of $4,545,230. They owned 5.9 per cent of all rented farms, constituting 3.4 per cent of the total area, and 2.3 per cent of the total value, of rented farms.

These percentages stand in marked contrast with those for the 1,006,168 owners of 1 rented farm each. Their farms constituted 52.0 per cent of all rented farms, contained 62.3 per cent of the total acreage, and represented 66.9 per cent of the value of such farms. In the North Atlantic division the owners of 1 rented farm constituted 92.8 per cent of all owners of rented farms residing in that division. They owned 82.0 per cent of the number of rented farms with owners residing in that division, and their farms contained 79.4 per cent of the acreage of such farms, and 79.2 per cent of the value. The corresponding figures for the owners of 20 farms and over were less than one-tenth of 1 per cent of all owners of rented farms, 1.5 per cent of the number of rented farms, 1.3 per cent of acres of rented land, and 0.5 per cent of the value of such land.

The figures for the South Central division differ materially from the foregoing. The owners of 1 rented farm each constituted but 70.3 per cent of all owners of such farms. They owned 35.8 per cent of all rented farms, and their farms contained 48.8 per cent of the acreage and represented 41.6 per cent of the value of all rented farms. The owners with 20 or more rented farms each constituted 0.6 per cent of the total number of owners of such farms. They controlled 11.2 per cent of the number of rented farms with owners domiciled in this geographic division, 7.3 per cent of the acreage, and 10.5 per cent of the value.

Outside of the Southern divisions, a relatively small amount of rented farm property was concentrated in the hands of a few individuals. The names of owners, when taken in connection with those of the tenants, suggested, in a large number of cases, relationship between the owner and tenant, as that of father and son. Tenancy of this character marks the first step toward transfer of ownership. The owner, once an active farmer, reaching advanced years and wishing to cease the intense labor of earlier life, surrenders the care of his farm to his son or to another individual, who cares for the farm as tenant for a few years and later becomes the owner.

RENTED FARMS OF INDIVIDUAL OWNERS CLASSIFIED BY AREA.

Table 24 presents the results of the final sorting of cards by area of rented land owned by individual owners, and by residence of owners. Table XC gives summaries of the same facts for the geographic divisions and for foreign countries; and table XCI, the percentages of number, acreage, and value of rented farms held by owners of specified areas of rented farm land.

TABLE XC.—NUMBER OF OWNERS OF SPECIFIED AREAS OF RENTED FARM LAND, WITH AVERAGE NUMBER OF FARMS, ACRES, AND VALUE OF RENTED LAND OWNED BY EACH, BY GEOGRAPHIC DIVISIONS AND FOREIGN COUNTRIES IN WHICH OWNERS RESIDE.

A.—OWNERS OF UNDER 100 ACRES.

GEOGRAPHIC DIVISIONS AND FOREIGN COUNTRIES.	Owners.	AVERAGE.		
		Number of farms.	Acres in farms.	Value of farms.
Grand total	696,259	1.2	44.0	$1,426
The United States	695,949	1.2	44.0	1,424
North Atlantic	68,928	1.0	51.8	3,421
South Atlantic	143,628	1.2	38.2	578
North Central	209,233	1.0	52.1	2,341
South Central	266,357	1.3	39.0	603
Western	12,749	1.0	40.0	3,050
Alaska and Hawaii	54	1.0	45.0	2,297
Foreign countries	310	1.1	49.4	5,215

B.—OWNERS OF 100 AND UNDER 200 ACRES.

Grand total	331,998	1.4	140.2	$4,090
The United States	331,757	1.4	140.2	4,090
North Atlantic	43,262	1.1	138.1	5,549
South Atlantic	46,117	1.7	133.3	1,751
North Central	159,951	1.1	143.2	5,409
South Central	72,954	2.0	137.9	1,797
Western	9,436	1.0	149.3	4,228
Alaska and Hawaii	37	1.0	144.5	4,066
Foreign countries	236	1.2	142.7	3,667

C.—OWNERS OF 200 AND UNDER 500 ACRES.

Grand total	186,170	2.1	287.2	$7,383
The United States	186,002	2.1	287.2	7,384
North Atlantic	16,527	1.4	278.6	9,115
South Atlantic	31,670	2.7	287.3	3,363
North Central	91,647	1.4	283.6	9,930
South Central	38,410	3.8	296.1	3,817
Western	7,732	1.2	313.0	7,693
Alaska and Hawaii	16	1.1	332.3	5,610
Foreign countries	168	1.5	307.5	6,715

TABLE XC.—NUMBER OF OWNERS OF SPECIFIED AREAS OF RENTED FARM LAND, WITH AVERAGE NUMBER OF FARMS, ACRES, AND VALUE OF RENTED LAND OWNED BY EACH, BY GEOGRAPHIC DIVISIONS AND FOREIGN COUNTRIES IN WHICH OWNERS RESIDE—Continued.

D.—OWNERS OF 500 AND UNDER 1,000 ACRES.

GEOGRAPHIC DIVISIONS AND FOREIGN COUNTRIES.	Owners.	AVERAGE.		
		Number of farms.	Acres in farms.	Value of farms.
Grand total	31,410	4.7	664.8	$13,291
The United States	31,368	4.7	664.8	13,289
North Atlantic	1,660	2.7	654.0	17,145
South Atlantic	7,427	5.3	657.8	6,317
North Central	11,180	2.5	663.1	20,674
South Central	8,479	8.4	669.1	8,502
Western	2,670	1.4	684.6	14,697
Alaska and Hawaii	2	2.5	558.5	11,300
Foreign countries	42	1.3	659.8	14,700

E.—OWNERS OF 1,000 AND UNDER 2,500 ACRES.

Grand total	9,631	9.4	1,420.0	$24,211
The United States	9,610	9.4	1,419.7	24,210
North Atlantic	420	4.7	1,412.8	27,783
South Atlantic	2,236	9.8	1,408.0	11,523
North Central	2,545	5.1	1,406.8	38,520
South Central	3,023	16.7	1,418.1	19,157
Western	1,381	1.9	1,468.0	28,404
Alaska and Hawaii	5	1.0	1,380.0	10,148
Foreign countries	21	3.5	1,570.9	24,952

F.—OWNERS OF 2,500 ACRES AND OVER.

Grand total	2,253	16.8	8,642.3	$65,892
The United States	2,241	16.9	8,660.4	65,948
North Atlantic	119	13.6	6,515.4	66,500
South Atlantic	328	25.6	4,484.7	39,086
North Central	388	12.8	5,584.9	104,745
South Central	809	25.0	12,174.9	44,216
Western	597	4.4	8,618.3	84,829
Alaska and Hawaii	.....	.....	.....	.....
Foreign countries	12	7.8	5,262.2	55,463

TABLE XCI.—PER CENT OF THE NUMBER OF RENTED FARMS, AND ACRES AND VALUE OF SUCH FARMS OWNED BY THOSE HOLDING SPECIFIED NUMBERS OF ACRES OF LAND, TOGETHER WITH THE PER CENT OF THE NUMBER OF SUCH OWNERS, BY GEOGRAPHIC DIVISIONS AND FOREIGN COUNTRIES IN WHICH THE OWNERS RESIDE.

A.—NUMBER OF RENTED FARMS.

GEOGRAPHIC DIVISIONS AND FOREIGN COUNTRIES.	Under 100 acres.	100 and under 200 acres.	200 and under 500 acres.	500 and under 1,000 acres.	1,000 and under 2,500 acres.	2,500 acres and over.
Grand total	41.9	23.7	20.2	7.6	4.6	2.0
The United States	41.9	23.7	20.2	7.6	4.6	2.0
North Atlantic	45.8	32.6	15.9	3.2	1.4	1.1
South Atlantic	43.3	19.3	20.5	9.6	5.3	2.0
North Central	38.2	31.0	22.7	4.9	2.3	0.9
South Central	43.7	19.0	18.8	9.3	6.6	2.6
Western	32.3	23.9	22.0	9.1	6.3	6.4
Alaska and Hawaii	45.8	31.7	14.2	4.2	4.1	.....
Foreign countries	30.7	26.3	22.8	5.0	6.7	8.5

TABLE XCI.—PER CENT OF THE NUMBER OF RENTED FARMS, AND ACRES AND VALUE OF SUCH FARMS OWNED BY THOSE HOLDING SPECIFIED NUMBERS OF ACRES OF LAND, TOGETHER WITH THE PER CENT OF THE NUMBER OF SUCH OWNERS, BY GEOGRAPHIC DIVISIONS AND FOREIGN COUNTRIES IN WHICH THE OWNERS RESIDE—Continued.

B.—ACREAGE OF RENTED FARMS.

GEOGRAPHIC DIVISIONS AND FOREIGN COUNTRIES.	Under 100 acres.	100 and under 200 acres.	200 and under 500 acres.	500 and under 1,000 acres.	1,000 and under 2,500 acres.	2,500 acres and over.
Grand total	16.6	25.2	29.0	11.3	7.4	10.5
The United States	16.6	25.2	29.0	11.3	7.4	10.5
North Atlantic	20.4	36.7	27.8	6.7	3.6	4.8
South Atlantic	18.2	20.3	30.1	16.1	10.4	4.9
North Central	14.9	31.4	35.7	10.1	4.9	3.0
South Central	20.1	19.5	22.0	11.0	8.3	19.1
Western	3.8	10.6	18.2	13.7	15.2	38.5
Alaska and Hawaii	11.5	25.3	25.2	5.3	32.7	.....
Foreign countries	6.8	15.0	23.0	12.4	14.7	28.1

C.—VALUES OF RENTED FARMS.

Grand total	21.9	30.0	30.4	9.2	5.2	3.3
The United States	21.9	30.0	30.4	9.2	5.2	3.3
North Atlantic	33.3	36.5	22.9	4.3	1.8	1.2
South Atlantic	23.4	22.7	29.9	13.2	7.2	3.6
North Central	18.6	32.9	34.6	8.7	3.7	1.5
South Central	26.6	21.7	24.3	11.9	9.6	5.9
Western	14.6	14.9	22.2	14.7	14.7	18.9
Alaska and Hawaii	28.3	34.4	20.5	5.2	11.6	.....
Foreign countries	29.8	16.0	20.8	11.4	9.7	12.3

D.—NUMBER OF OWNERS OF RENTED FARMS.

Grand total	55.3	26.4	14.8	2.5	0.8	0.2
The United States	55.4	26.4	14.8	2.5	0.7	0.2
North Atlantic	50.8	34.4	13.1	1.3	0.3	0.1
South Atlantic	62.1	19.9	13.7	3.2	1.0	0.1
North Central	44.1	33.7	19.3	2.3	0.5	0.1
South Central	68.3	18.7	9.8	2.2	0.8	0.2
Western	36.9	27.3	22.4	7.7	4.0	1.7
Alaska and Hawaii	47.4	32.5	14.0	1.7	4.4	.....
Foreign countries	39.3	29.9	21.3	5.3	2.7	1.5

Of the 1,257,716 owners of rented farms, whose names and addresses were given, 696,259, or 55.3 per cent, owned less than 100 acres of land; 331,993, or 26.4 per cent, 100 and less than 200 acres; 186,170, or 14.8 per cent, 200 and less than 500 acres; 31,410, or 2.5 per cent, 500 and less than 1,000 acres; 9,631, or 0.8 per cent, 1,000 and less than 2,500 acres; and 2,253, or 0.2 per cent, 2,500 acres and over. The owners of less than 100 acres owned 41.9 per cent of all rented farms, but those farms contained only 16.6 per cent of the acreage of all rented land, and represented only 21.9 per cent of the value.

The next class of owners shown in Table 24, those owning 100 to 200 acres, constituted 26.4 per cent of all owners. They owned 23.7 per cent of all rented farms, 25.2 per cent of the total area of rented land, and 30.0 per cent of the total value of such farms. This class of rented farms had areas and values above the average for all rented farms.

The third class of owners of rented land, those with from 200 to 500 acres each, constituted 14.8 per cent of all owners. They controlled 20.2 per cent of all rented farms, 29.0 per cent of the rented land, and 30.4 per cent of the value of such farms, thus also exceeding the general averages for all rented farms.

The fourth class of owners of rented land, those with from 500 to 1,000 acres each, constituted 2.5 per cent of all owners. They controlled 7.6 per cent of all rented farms, 11.3 per cent of the acreage, and 9.2 per cent of the value of such farms. Although the average value per acre was not so great as that for other classes of rented farms, the larger average areas were sufficient to produce averages exceeding those for all rented farms.

The class of owners with 1,000 and less than 2,500 acres each, constituted only 0.8 per cent of all farm owners. They controlled 4.6 per cent of all rented farms, 7.4 per cent of the area of rented land, and 5.2 per cent of the total value of rented farms. The average value per acre of these farms was substantially the same as for the farms of the preceding group.

The farms of owners with 2,500 acres and over of rented land show the same general characteristics as those of the two classes last named, but the average value per acre is less, and, consequently a more marked variation is shown between the percentages for areas and values. These owners constituted 0.2 per cent of all owners of rented land, and controlled 2.0 per cent of the farms, 10.5 per cent of the acreage, and only 3.3 per cent of the value.

Owners residing in foreign countries have the smallest per cent of rented farms of less than 100 acres, while those in the North Atlantic division and in Alaska and Hawaii have the largest per cent of the same area, the per cent for the former being 30.7, and for the latter, 45.8. In view of the small number of farms reported for Alaska and Hawaii, the per cent given has little significance.

RENTED FARMS OF INDIVIDUAL OWNERS CLASSIFIED BY VALUE.

Table 25 presents the results of the final sorting and tabulation of cards by the value of the holdings of individual owners. Tables XCII and XCIII present summaries and percentages of the facts shown in Table 25. The percentages of Table 25 are by states and territories, and those of tables XCII and XCIII by geographic divisions and foreign countries taken as a unit.

TABLE XCII.—NUMBER OF OWNERS OF SPECIFIED VALUES OF RENTED FARMS, WITH AVERAGE NUMBER OF FARMS, ACRES, AND VALUE OF RENTED LAND OWNED BY EACH, BY GEOGRAPHIC DIVISIONS AND FOREIGN COUNTRIES IN WHICH OWNERS RESIDE.

GEOGRAPHIC DIVISIONS AND FOREIGN COUNTRIES.	Owners.	AVERAGE.		
		Number of farms.	Acres in farms.	Value of farms.
A.—OWNERS OF UNDER $1,000.				
Grand total	488,211	1.2	51.2	$408
The United States	488,055	1.2	51.1	407
North Atlantic	14,002	1.0	62.2	570
South Atlantic	149,587	1.3	54.1	386
North Central	65,030	1.0	42.1	518
South Central	254,643	1.3	50.7	381
Western	4,779	1.0	74.6	541
Alaska and Hawaii	14	1.0	38.6	555
Foreign countries	156	1.1	65.2	489
B.—OWNERS OF $1,000 AND UNDER $2,000.				
Grand total	198,276	1.5	110.9	$1,366
The United States	198,133	1.5	110.8	1,366
North Atlantic	21,637	1.0	70.5	1,350
South Atlantic	38,583	2.0	157.2	1,316
North Central	66,972	1.1	81.6	1 432
South Central	65,071	2.0	125.9	1,336
Western	5,893	1.0	121.2	1,339
Alaska and Hawaii	27	1.0	78.2	1,258
Foreign countries	143	1.4	151.0	1,404
C.—OWNERS OF $2,000 AND UNDER $5,000.				
Grand total	303,095	1.5	149.9	$3,216
The United States	302,848	1.5	149.8	3,217
North Atlantic	48,216	1.0	112.2	3,178
South Atlantic	28,595	2.9	276.4	2,929
North Central	167,674	1.1	118.9	3,370
South Central	47,293	2.8	214.1	2,921
Western	11,016	1.1	180.6	3,071
Alaska and Hawaii	54	1.1	207.5	3,158
Foreign countries	247	1.1	204.8	3,088
D.—OWNERS OF $5,000 AND UNDER $10,000.				
Grand total	166,447	1.7	219.2	$6,593
The United States	166,301	1.7	219.1	6,593
North Atlantic	28,229	1.1	157.4	6,482
South Atlantic	9,775	3.8	436.5	6,635
North Central	106,867	1.2	184.0	6,607
South Central	14,837	5.2	404.5	6,673
Western	6,584	1.1	312.5	6,599
Alaska and Hawaii	9	1.0	469.9	5,856
Foreign countries	146	1.4	304.9	6,872
E.—OWNERS OF $10,000 AND UNDER $25,000.				
Grand total	86,081	2.3	366.8	$13,879
The United States	86,013	2.3	366.5	13,878
North Atlantic	11,518	1.5	236.7	13,891
South Atlantic	4,177	5.5	674.0	14,108
North Central	59,349	1.5	300.6	13,766
South Central	6,577	9.7	859.2	14,438
Western	4,384	1.3	568.1	14,303
Alaska and Hawaii	8	1.4	207.9	14,705
Foreign countries	68	1.9	747.4	15,045

TABLE XCII.—NUMBER OF OWNERS OF SPECIFIED VALUES OF RENTED FARMS, WITH AVERAGE NUMBER OF FARMS, ACRES, AND VALUE OF RENTED LAND OWNED BY EACH, BY GEOGRAPHIC DIVISIONS AND FOREIGN COUNTRIES IN WHICH OWNERS RESIDE—Continued.

F.—OWNERS OF $25,000 AND OVER.

GEOGRAPHIC DIVISIONS AND FOREIGN COUNTRIES.	Owners.	AVERAGE.		
		Number of farms.	Acres in farms.	Value of farms.
Grand total	15,606	6.0	1,552.5	$50,453
The United States	15,577	6.0	1,552.4	50,396
North Atlantic	2,314	2.7	556.6	53,601
South Atlantic	739	9.8	1,493.0	53,963
North Central	9,002	3.6	810.2	46,229
South Central	1,611	26.4	5,436.8	54,616
Western	1,909	2.8	3,005.2	61,244
Alaska and Hawaii	2	1.0	680.5	27,500
Foreign countries	29	4.2	1,614.9	81,070

TABLE XCIII.—PERCENTAGES OF THE NUMBER OF RENTED FARMS, AND ACRES AND VALUES OF SUCH FARMS, OWNED BY THOSE HOLDING LAND OF SPECIFIED VALUES, BY GEOGRAPHIC DIVISIONS AND FOREIGN COUNTRIES IN WHICH THE OWNERS RESIDE.

A.—NUMBER OF RENTED FARMS.

GEOGRAPHIC DIVISIONS AND FOREIGN COUNTRIES.	Under $1,000.	$1,000 and under $2,000.	$2,000 and under $5,000.	$5,000 and under $10,000.	$10,000 and under $25,000.	$25,000 and over.
Grand total	30.9	15.6	23.8	14.5	10.3	4.9
The United States	30.9	15.6	23.8	14.5	10.3	4.9
North Atlantic	10.0	15.6	35.5	22.6	11.9	4.4
South Atlantic	45.6	18.3	19.8	9.0	5.6	1.7
North Central	11.9	12.5	31.9	22.3	15.7	5.7
South Central	42.0	16.6	17.5	10.1	8.3	5.5
Western	12.0	14.8	28.2	17.9	14.3	12.8
Alaska and Hawaii	11.7	22.5	47.5	7.5	9.2	1.6
Foreign countries	15.0	18.2	25.4	18.4	11.8	11.2

B.—ACREAGE OF RENTED FARMS.

Grand total	13.5	11.9	24.6	19.8	17.1	13.1
The United States	13.5	11.9	24.6	19.8	17.1	13.1
North Atlantic	5.4	9.4	33.2	27.3	16.8	7.9
South Atlantic	26.8	20.0	26.1	14.1	9.3	3.7
North Central	3.7	7.5	27.3	27.0	24.5	10.0
South Central	25.0	15.9	19.6	11.6	10.9	17.0
Western	2.7	5.4	15.0	15.4	18.6	42.9
Alaska and Hawaii	2.6	10.0	58.1	20.0	7.9	6.4
Foreign countries	4.5	9.6	22.5	19.8	22.7	20.9

C.—VALUE OF RENTED FARMS.

Grand total	4.4	6.0	21.5	24.3	26.4	17.4
The United States	4.4	6.0	21.5	24.3	26.4	17.4
North Atlantic	1.2	4.5	23.3	27.8	24.3	18.9
South Atlantic	16.2	14.3	23.5	18.2	16.6	11.2
North Central	1.3	3.6	21.5	26.8	31.0	15.8
South Central	16.0	14.4	22.9	16.4	15.7	14.6
Western	1.0	3.0	12.7	16.2	23.4	43.7
Alaska and Hawaii	1.8	7.7	39.0	12.0	26.9	12.6
Foreign countries	1.4	3.7	14.1	18.5	18.9	43.4

D.—NUMBER OF OWNERS OF RENTED FARMS.

Grand total	38.8	15.8	24.1	13.2	6.9	1.2
The United States	38.8	15.8	24.1	13.2	6.9	1.2
North Atlantic	11.1	17.2	38.3	22.4	9.2	1.8
South Atlantic	64.6	16.7	12.4	4.2	1.8	0.3
North Central	13.7	14.1	35.3	22.5	12.5	1.9
South Central	65.3	16.7	12.1	3.8	1.7	0.4
Western	13.8	17.1	31.9	19.0	12.7	5.5
Alaska and Hawaii	12.3	23.7	47.4	7.9	7.0	1.7
Foreign countries	19.8	18.1	31.3	18.5	8.6	3.7

Of the 1,257,716 owners of rented farms, 488,211 possessed holdings of a value less than $1,000, with an average of 1.2 farms each; 198,276 possessed rented land of a value of $1,000 and less than $2,000, and 3 farms for every 2 owners; 303,095 owned rented land worth $2,000 and less than $5,000, and 3 farms for every 2 owners; 166,447 owned rented land worth $5,000 and less than $10,000, and an average of 1.7 farms each; 86,081 owners held rented land of a value of $10,000 and less than $25,000, and an average of 2.3 farms each; 15,606 owners possessed rented land worth over $25,000, and controlled an average of 6.0 farms each. Tables XCII and XCIII, also Table 25, show the relative concentration of farm values in the hands of a few individuals, while tables LXXXVIII and LXXXIX, and Table 23, give the relative concentration of rented farms.

The first class, those with holdings valued at less than $1,000, constituted 38.8 per cent of the owners, with 30.9 per cent of all rented farms, 13.5 per cent of the acreage, and only 4.4 per cent of the values of such farms.

In contrast with the holdings of the owners of the foregoing class should be placed the largest holdings, those worth $25,000 and over. The owners of these constituted but 1.2 per cent of all owners, but they controlled 4.9 per cent of the farms, 13.1 per cent of the area, and 17.4 per cent of the value of rented land. The individuals owning rented property worth $10,000 to $25,000 constituted 6.9 per cent of all owners of rented land. They controlled 10.3 per cent of the number of farms, 17.1 per cent of the acreage, and 26.4 per cent of the value. These two groups of farm owners, with holdings of from $10,000 to $25,000, and $25,000 and over, constituted 8.1 per cent of all owners of rented farms. They controlled 15.2 per cent of all rented farms, 30.2 per cent of the acreage, and 43.8 per cent of the value thereof.

The group of owners with holdings of rented farms worth $1,000 and less than $2,000 constituted 15.8 per cent of all owners of such farms. They controlled 15.6 per cent of the rented farms, 11.9 per cent of the acreage, and 6.0 per cent of the total value of rented farms.

The group of owners with rented farms worth $2,000 and less than $5,000 constituted 24.1 per cent of all owners, and controlled 23.8 per cent of all rented farms, 24.6 per cent of the acreage, and 21.5 per cent of the value of rented land.

The group with rented farms worth $5,000 and less than $10,000 constituted 13.2 per cent of all owners, and controlled 14.5 per cent of all rented farms, 19.8 per cent of the acreage, and 24.3 per cent of the value of the same.

From rented farms worth less than $2,000, those worth $2,000 and under $10,000, and those worth $10,000

and over, the following statement is deduced of the concentration of the ownership of land areas:

	Per cent.
54.6 per cent own	25.4
37.3 per cent own	44.4
8.1 per cent own	30.2

The same groups show the following relative concentration of the ownership of value of rented farms:

	Per cent.
54.6 per cent own	10.4
37.3 per cent own	45.8
8.1 per cent own	43.8

It will be noted that 8.1 per cent of the owners of rented farms have holdings representing 43.8 per cent of the aggregate value of such land, thus showing a large relative concentration not only of values, but also of acreage, in the hands of comparatively few individuals.

FARMS CLASSIFIED BY COLOR OR RACE OF FARMER.

NUMBER OF WHITE AND COLORED FARMERS, BY GEOGRAPHIC DIVISIONS.

Table xciv shows the number and per cent of farms operated by white and colored farmers, by states and territories.

TABLE XCIV.—NUMBER AND PER CENT, OF FARMS OPERATED BY WHITE AND COLORED FARMERS, JUNE 1, 1900, BY STATES AND TERRITORIES.

STATES AND TERRITORIES.	NUMBER OF FARMS.			PER CENT OF FARMS.	
	Total.	Operated by—		Operated by—	
		White farmers.	Colored farmers.	White farmers.	Colored farmers.
The United States	5,739,657	4,970,129	769,528	86.6	13.4
North Atlantic division	677,506	675,366	2,140	99.7	0.3
Maine	59,299	59,270	29	100.0	(1)
New Hampshire	29,324	29,314	10	100.0	(1)
Vermont	33,104	33,096	8	100.0	(1)
Massachusetts	37,715	37,605	110	99.7	0.3
Rhode Island	5,498	5,470	28	99.5	0.5
Connecticut	26,948	26,839	109	99.6	0.4
New York	226,720	225,935	785	99.7	0.3
New Jersey	34,650	34,180	470	98.6	1.4
Pennsylvania	224,248	223,657	591	99.7	0.3
South Atlantic division	962,225	673,354	288,871	70.0	30.0
Delaware	9,687	8,869	818	91.6	8.4
Maryland	46,012	40,169	5,843	87.3	12.7
District of Columbia	269	252	17	93.7	6.3
Virginia	167,886	123,052	44,834	73.3	26.7
West Virginia	92,874	92,132	742	99.2	0.8
North Carolina	224,637	169,773	54,864	75.6	24.4
South Carolina	155,355	69,954	85,401	45.0	55.0
Georgia	224,691	141,865	82,826	63.1	36.9
Florida	40,814	27,288	13,526	66.9	33.1
North Central division	2,196,567	2,179,667	16,900	99.2	0.8
Ohio	276,719	274,750	1,969	99.3	0.7
Indiana	221,897	220,835	1,062	99.5	0.5
Illinois	264,151	262,662	1,489	99.4	0.6
Michigan	203,261	202,288	973	99.5	0.5
Wisconsin	169,795	169,275	520	99.7	0.3
Minnesota	154,659	154,287	372	99.8	0.2
Iowa	228,622	228,395	227	99.9	0.1
Missouri	284,886	279,933	4,953	98.3	1.7
North Dakota	46,332	43,998	1,334	97.1	2.9
South Dakota	52,622	50,816	1,806	96.6	3.4
Nebraska	121,525	121,196	329	99.7	0.3
Kansas	173,098	171,232	1,866	98.9	1.1
South Central division	1,658,166	1,206,367	451,799	72.8	27.2
Kentucky	234,667	223,429	11,238	95.2	4.8
Tennessee	224,623	190,728	33,895	84.9	15.1
Alabama	223,220	129,137	94,083	57.9	42.1
Mississippi	220,803	92,124	128,679	41.7	58.3
Louisiana	115,969	57,809	58,160	49.8	50.2
Texas	352,190	286,654	65,536	81.4	18.6
Oklahoma	62,495	59,324	3,171	94.9	5.1
Indian Territory	45,505	35,451	10,054	77.9	22.1
Arkansas	178,694	131,711	46,983	73.7	26.3

[1] Less than one-tenth of 1 per cent.

TABLE XCIV.—NUMBER AND PER CENT OF FARMS OPERATED BY WHITE AND COLORED FARMERS, JUNE 1, 1900, BY STATES AND TERRITORIES—Continued.

STATES AND TERRITORIES.	NUMBER OF FARMS.			PER CENT OF FARMS.	
	Total.	Operated by—		Operated by—	
		White farmers.	Colored farmers.	White farmers.	Colored farmers.
Western division	242,908	234,854	8,054	96.7	3.3
Montana	13,370	13,042	328	97.5	2.5
Wyoming	6,095	5,922	173	97.2	2.8
Colorado	24,700	24,627	73	99.7	0.3
New Mexico	12,311	10,893	1,418	88.5	11.5
Arizona	5,809	4,006	1,803	69.0	31.0
Utah	19,387	19,144	243	98.7	1.3
Nevada	2,184	2,011	173	92.1	7.9
Idaho	17,471	16,876	595	96.6	3.4
Washington	33,202	32,112	1,090	96.7	3.3
Oregon	35,837	35,286	551	98.5	1.5
California	72,542	70,935	1,607	97.8	2.2
Alaska	12	12	.....	100.0	.....
Hawaii	2,273	509	1,764	22.4	77.6

Of the 5,739,657 farms in the United States, June 1, 1900, 4,970,129, or 86.6 per cent, were operated by white farmers, and 769,528, or 13.4 per cent, by the various races grouped under the general designation of colored, including negroes, Indians, Chinese, Japanese, Hawaiians, and South Sea Islanders, and those descended from such races.

Of the geographic divisions, the North Atlantic had the greatest proportion of white farmers, 99.7 per cent of the 677,506 farms in that division being operated by white, and only 2,140, or 0.3 per cent, by colored farmers.

In the South Atlantic division 70.0 per cent of the farms were operated by white, and 30.0 per cent by colored farmers. The highest per cent of white farmers in any state of the division, 99.2, was found in West Virginia, and the highest per cent of colored farmers, 55.0, in South Carolina.

In the North Central division the white farmers operated 99.2 per cent of all farms, and the colored farmers but 0.8 per cent. The per cent of colored farmers varied from 0.1 in Iowa to 3.4 in South Dakota.

The South Central division, like the South Atlantic, had a very large proportion of colored farmers. They

numbered 451,799 in a total of 1,658,166, or 27.2 per cent. The largest relative number of farms operated by colored farmers in the South Central division was in Mississippi—58.3 per cent, a figure exceeded only in Hawaii. Kentucky and Oklahoma were lowest, with 4.8 and 5.1 per cent, respectively.

In the Western division the per cent of colored farmers was 3.3 and that of white farmers 96.7. Colored farmers were relatively most numerous in Arizona, which reported 31.0 per cent, and fewest in Colorado, where they constituted only 0.3 per cent. Alaska was the only state or territory in which no colored farmers were enumerated. Hawaii reported the highest per cent of colored farmers, 77.6, and the lowest per cent of white farmers, 22.4.

Table XCV shows, by states and territories, the distribution of farms of colored farmers by race, as well as the number of white farmers. Table XCVI gives the per cent of the number of farms, June 1, 1900, operated by individuals of specified races, by geographic divisions.

TABLE XCV.—NUMBER OF FARMS OF WHITE, NEGRO, INDIAN, CHINESE, JAPANESE, AND HAWAIIAN FARMERS, JUNE 1, 1900, BY STATES AND TERRITORIES.

STATES AND TERRITORIES.	Total number of farms.	FARMS OPERATED BY—				
		Whites.	Negroes.	Indians.	Chinese.	Japanese.
The United States	[1] 5,739,657	4,970,129	746,717	19,910	1,842	570
North Atlantic division	677,506	675,366	1,761	366	13	.....
Maine	59,299	59,270	24	5	.....	.....
New Hampshire	29,324	29,314	10	.....	.....	.....
Vermont	33,104	33,096	8	.....	.....	.....
Massachusetts	37,715	37,605	87	22	1	.....
Rhode Island	5,498	5,470	28	.....	.....	.....
Connecticut	26,948	26,839	107	2	.....	.....
New York	226,720	225,935	443	331	11	.....
New Jersey	34,650	34,180	469	.....	1	.....
Pennsylvania	224,248	223,657	585	6	.....	.....
South Atlantic division	962,225	673,354	287,933	935	3	.....
Delaware	9,687	8,869	817	.....	1	.....
Maryland	46,012	40,169	5,842	.....	1	.....
District of Columbia	269	252	17	.....	.....	.....
Virginia	167,886	123,052	44,795	39	.....	.....
West Virginia	92,874	92,132	742	.....	.....	.....
North Carolina	224,637	169,773	53,996	868	.....	.....
South Carolina	155,355	69,954	85,381	20	.....	.....
Georgia	224,691	141,865	82,822	3	1	.....
Florida	40,814	27,288	13,521	5	.....	.....
North Central division	2,196,567	2,179,667	12,255	4,637	8	.....
Ohio	276,719	274,750	1,966	2	1	.....
Indiana	221,897	220,835	1,043	19	.....	.....
Illinois	264,151	262,662	1,486	.....	3	.....
Michigan	203,261	202,288	626	347	.....	.....
Wisconsin	169,795	169,275	58	462	.....	.....
Minnesota	154,659	154,287	31	341	.....	.....
Iowa	228,622	228,395	200	27	.....	.....
Missouri	284,886	279,933	4,950	3	.....	.....
North Dakota	45,332	43,998	18	1,316	.....	.....
South Dakota	52,622	50,816	17	1,788	1	.....
Nebraska	121,525	121,196	78	249	2	.....
Kansas	173,098	171,232	1,782	83	1	.....
South Central division	1,658,166	1,206,367	444,429	7,354	16	.....
Kentucky	234,667	223,429	11,227	11	.....	.....
Tennessee	224,623	190,728	33,883	12	.....	.....
Alabama	223,220	129,137	94,069	14	.....	.....
Mississippi	220,803	92,124	128,351	328	.....	.....
Louisiana	115,969	57,809	58,096	62	2	.....
Texas	352,190	286,654	65,472	51	13	.....
Oklahoma	62,495	59,324	2,256	915	.....	.....
Indian Territory	45,505	35,451	4,097	5,957	.....	.....
Arkansas	178,694	131,711	46,978	4	1	.....

[1] Including the farms of 431 Hawaiians, 57 part Hawaiians, and 1 South Sea Islander.

TABLE XCV.—NUMBER OF FARMS, OF WHITE, NEGRO, INDIAN, CHINESE, JAPANESE, AND HAWAIIAN FARMERS, JUNE 1, 1900, BY STATES AND TERRITORIES—Continued.

STATES AND TERRITORIES.	Total number of farms.	FARMS OPERATED BY—				
		Whites.	Negroes.	Indians.	Chinese.	Japanese.
Western division	242,908	234,854	337	6,618	1,060	39
Montana	13,370	13,042	21	281	26	.....
Wyoming	6,095	5,922	2	167	4	.....
Colorado	24,700	24,627	58	15	.....	.....
New Mexico	12,311	10,893	14	1,401	3	.....
Arizona	5,809	4,006	15	1,770	18	.....
Utah	19,387	19,144	11	199	33	.....
Nevada	2,184	2,011	3	155	15	.....
Idaho	17,471	16,876	9	563	23	.....
Washington	33,202	32,112	55	966	59	.....
Oregon	35,837	35,286	14	443	92	2
California	72,542	70,935	135	658	777	37
Alaska	12	12	.....	.....	.....	.....
Hawaii	[1] 2,273	509	2	.....	742	531

TABLE XCVI.—PER CENT OF THE NUMBER OF FARMS OPERATED BY INDIVIDUALS BELONGING TO SPECIFIED RACES, JUNE 1, 1900, BY GEOGRAPHIC DIVISIONS.

GEOGRAPHIC DIVISIONS.	PER CENT OF THE NUMBER OF FARMS OPERATED BY—					
	White.	Negro.	Indian.	Chinese.	Japanese.	Hawaiian.[1]
The United States	86.6	13.0	0.4	(2)	(2)	(2)
North Atlantic	99.7	0.3	(2)	(2)	.....	.....
South Atlantic	70.0	29.9	0.1	(2)	.....	.....
North Central	99.2	0.6	0.2	(2)	.....	.....
South Central	72.8	26.8	0.4	(2)	.....	.....
Western	96.7	0.2	2.7	0.4	(2)	.....
Alaska and Hawaii	22.8	0.1	.....	32.5	23.2	21.4

[1] Including part Hawaiians and 1 South Sea Islander.
[2] Less than one-tenth of 1 per cent.

The number of negro farmers in some states was very small, less than 10 being reported from the following states and territories: Vermont, 8, Wyoming 2, Nevada 3, Idaho 9, Alaska 0, and Hawaii 2.

Indian farmers were reported from 5 of the 9 North Atlantic states, from 5 of the 9 South Atlantic states, from all of the North Central states except Illinois, and from all of the South Central and Western states, but none from Alaska or Hawaii.

The Chinese farmers numbered 1,842, and were reported in 3 of the North Atlantic states, 3 of the South Atlantic, 5 of the North Central, 3 of the South Central, in all of the Western states except Colorado, and also in Hawaii.

The Japanese farmers numbered only 570, of whom 531 were in Hawaii, 37 in California, and 2 in Oregon.

The Hawaiians, part Hawaiians, and South Sea Islanders, were all found in Hawaii.

In the North Atlantic division, exclusive of New York, the colored farmers were mostly negroes, as the other states reported only 2 Chinamen and 35 Indians. In New York, however, 331 Indian and 11 Chinese farmers were reported, the former being mainly descendants of the famous Six Nations.

Of the 287,933 colored farmers in the South Atlantic division, all but 938 were negroes or of negro descent; 935 were Indians, and 3 were Chinese. Of the Indians, 868 were domiciled in the state of North Carolina.

Of the colored farmers in the North Central division, nearly 30 per cent were Indians, of whom two-thirds lived in the two Dakotas. Of the colored farmers in the South Central states, 444,429 were negroes and 7,354 Indians, the great majority of the latter being in Indian Territory and Oklahoma, and a considerable number in Mississippi.

In the Western division the Indians constituted 2.7 per cent of all farmers, the Chinese 0.4 per cent, and the negroes 0.2 per cent. Indians were found in all states, but in largest numbers in Arizona and New Mexico. The Chinese were most numerous in California.

In Hawaii the Chinese operated 32.6 per cent of all farms; the Japanese, 23.4 per cent; the Hawaiians, 21.5 per cent; the whites, 22.4 per cent; while negroes had only 2 farms. All the farms in Alaska were operated by whites.

FARMS OPERATED BY FARMERS OF SPECIFIED RACES CLASSIFIED BY OTHER CHARACTERISTICS.

Table xcvii gives by percentages four classifications of the farms operated by farmers of specified races, and shows the relative number of farms of designated characteristics that were operated by the farmers of each race.

TABLE XCVII.—PER CENT OF FARMS OPERATED BY FARMERS OF SPECIFIED RACES, JUNE 1, 1900, CLASSIFIED BY AREA, PRINCIPAL SOURCE OF INCOME, VALUE OF PRODUCTS NOT FED TO LIVE STOCK, AND TENURE.

A.—FARMS CLASSIFIED BY AREA IN ACRES.

GROUPS OF FARMS.	Per cent of all farms.	PER CENT OF NUMBER OF FARMS OF FARMERS OF SPECIFIED RACES.					
		White.	Negro.	Indian.	Chinese.	Japanese.	Hawaiian.[1]
All farms	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Under 3	0.7	0.7	0.6	3.9	14.9	26.7	25.0
3 and under 10	4.0	3.5	6.8	10.6	23.1	44.2	28.6
10 and under 20	7.1	5.7	16.0	13.2	17.7	17.7	10.2
20 and under 50	21.9	18.3	45.9	20.4	19.9	7.5	10.8
50 and under 100	23.8	24.8	18.0	12.6	10.7	1.6	10.6
100 and under 175	24.8	27.2	8.9	17.7	8.2	0.7	3.7
175 and under 260	8.5	9.5	2.2	4.5	3.3	0.5	2.3
260 and under 500	6.6	7.4	1.2	7.9	1.4	0.7	3.5
500 and under 1,000	1.8	2.0	0.3	6.1	0.4	.....	1.8
1,000 and over	0.8	0.9	0.1	3.1	0.4	0.4	3.5

[1] Including part Hawaiians and 1 South Sea Islander.

TABLE XCVII.—PER CENT OF FARMS OPERATED BY FARMERS OF SPECIFIED RACES, JUNE 1, 1900, CLASSIFIED BY AREA, PRINCIPAL SOURCE OF INCOME, VALUE OF PRODUCTS NOT FED TO LIVE STOCK, AND TENURE—Continued.

B.—FARMS CLASSIFIED BY PRINCIPAL SOURCE OF INCOME.

GROUPS OF FARMS.	Per cent of all farms.	PER CENT OF NUMBER OF FARMS OF FARMERS OF SPECIFIED RACES.					
		White.	Negro.	Indian.	Chinese.	Japanese.	Hawaiian.[1]
Hay and grain	23.0	25.4	6.9	40.9	3.5	0.2	.....
Vegetables	2.7	2.8	2.1	3.9	37.1	6.5	3.7
Fruits	1.4	1.6	0.3	0.7	14.9	7.7	2.9
Live stock	27.3	30.7	4.1	28.3	5.5	2.6	8.4
Dairy produce	6.2	7.1	0.7	1.8	0.3	0.9	1.2
Tobacco	1.9	1.8	2.6	0.1	1.2	.....	.....
Cotton	18.7	10.9	70.5	9.4	0.4	.....	.....
Rice	0.1	0.1	0.3	(2)	21.4	15.3	2.8
Sugar	0.1	0.1	0.1	(2)	1.2	10.3	1.2
Flowers and plants	0.1	0.1	(2)	.....	0.1	1.1	.....
Nursery products	(2)	(2)	(2)	.....	.....	0.2	.....
Taro	(2)	(2)	(2)	.....	4.9	8.9	53.8
Coffee	(2)	(2)	.....	.....	2.2	32.8	21.1
Miscellaneous	18.5	19.4	12.4	14.9	7.3	13.5	4.9

C.—FARMS CLASSIFIED BY VALUE OF PRODUCTS OF 1899 NOT FED TO LIVE STOCK.

$0	0.9	0.8	1.4	8.4	2.7	1.1	4.9
$1 and under $50	2.9	2.3	6.8	21.1	1.7	3.5	5.3
$50 and under $100	5.3	4.6	9.8	16.6	3.0	5.8	12.3
$100 and under $250	21.8	20.0	33.1	27.1	8.7	27.2	35.2
$250 and under $500	27.9	27.0	34.1	14.0	13.6	31.2	19.4
$500 and under $1,000	24.0	25.8	12.8	7.8	20.3	19.8	11.2
$1,000 and under $2,500	14.5	16.4	1.9	3.9	25.0	9.5	7.0
$2,500 and over	2.7	3.1	0.1	1.1	25.0	1.9	4.7

D.—FARMS CLASSIFIED BY TENURE.

Owners	54.9	59.8	21.0	90.4	7.2	8.1	58.9
Part owners	7.9	8.5	4.0	2.7	1.7	0.9	14.9
Owners and tenants	0.9	1.0	0.2	0.6	0.1	.....	.....
Managers	1.0	1.2	0.2	0.3	2.4	0.3	1.4
Cash tenants	13.1	9.6	36.6	1.1	78.3	85.1	21.5
Share tenants	22.2	19.9	38.0	4.9	10.3	5.6	3.3

[1] Including part Hawaiians and 1 South Sea Islander.
[2] Less than one-tenth of 1 per cent.

In the groups of farms classified by area the percentages for the Hawaiians, including part Hawaiians and South Sea Islanders, with those for the Chinese and Japanese, form a nearly regular series, having its maximum in the group with 3 and less than 10 acres, and descending to the farms of largest area. For all races the per cent of farms in the group under 3 acres was less than in that of farms of the next larger areas, but the disproportion was not so marked for the three Pacific races, each of which shows a maximum in some one of the groups of over 20 acres. The farmers of the Pacific races were generally engaged in branches of agriculture that can be conducted most profitably on farms of small area. This is shown also by the percentages of section B of the same table, to which attention will be called later.

The greatest relative numbers of Indian and negro farmers operated farms containing from 20 to 50 acres.

The percentages for both races descend in either direction from farms of these specified areas to those with the largest and smallest acreages.

More white farmers were engaged in conducting farms containing from 100 to 175 acres than of any other specified area. The percentages for their farms decrease regularly from that group to those of largest and smallest sizes.

It is well to compare the average size of farms operated by the members of these races with what might be expected from the distribution of farms by percentages as given in table XCVII. The average area of farms cultivated by white farmers was 160.7 acres; by negroes, 51.2 acres; by Indians, 172.5 acres; by Chinese, 63.8 acres; by Japanese, 37.1 acres; and by Hawaiians, 996.4 acres.

The average area of the farms operated by whites is substantially the quarter section of land and falls within the group in which the whites had the greatest per cent of farms. The average size of farms of negroes is 51.2 acres, while the greatest relative number of their farms is contained in the group whose maximum limit is 50 acres. The farms of the other races have average areas that differ much from that of the group in which they have their highest per cent of farms. The most marked case of this kind is that of the Hawaiians who have more farms with areas of 3 and under 10 acres than of any other area, while the average area of all their farms was 996.4 acres, or over six times that of the farms of any other race. Hawaii has relatively more very small farms and more very large ones than any other territory or state. Of the several races, the Hawaiians and whites are in control of the largest farms. The aggregate number of farms operated by white farmers in Hawaii, however, is so small as to have no appreciable influence upon the average area of the farms of the white race as a whole.

A few large holdings greatly increase the average size of the farms of Indians and Chinese as well as those of Hawaiians. For the Japanese farmers the increase is due to a like cause, but not to so great an extent as in the case of the two other races mentioned.

Relatively greater numbers of live-stock farms and of hay and grain farms were operated by white and by Indian farmers than by all farmers. These two classes of farms constituted 56.1 per cent of the farms of whites, 69.2 per cent of those of Indians, and 50.3 per cent of all farms. It may be said, therefore, that these branches of farming are most prominent in the agricultural operations of the races mentioned.

Of all farms operated by negroes, cotton, tobacco, and rice farms constituted 70.5, 2.6, and 0.3 per cent respectively, while the per cent of such farms was only 18.7, 1.9, and 0.1, respectively, of all farms. No other race had so large a portion of its farmers devoting their energies to the production of a single staple as is the case of the negroes with reference to the cotton crop.

Of the farms of the Chinese, 37.1 per cent made the cultivation of vegetables the principal source of income. The corresponding percentages for other farms were as follows: Rice, 21.4; fruit, 14.9; taro, 4.9; coffee, 2.2; and sugar, 1.2. For all farms the corresponding percentages were as follows: Vegetables, 2.7; rice, 0.1; fruits, 1.4; sugar, 0.1; and taro and coffee, less than 0.1 per cent. All these crops require intensive cultivation, the use of small tracts of land, and a large relative amount of human labor, with but little animal labor. The Chinese lead in such branches of farming, while white farmers lead in the cultivation of hay and grain.

The Japanese in Hawaii have as their specialty the cultivation of coffee. Coffee farms constituted less than 0.1 per cent of all farms, but 32.8 per cent of the Japanese farmers derived their principal income from coffee production. They operated 13.5 per cent of the miscellaneous farms, the greater number of which were comparatively undeveloped coffee plantations from which small incomes are derived from a variety of other products while the coffee plants are maturing. The relative numbers of Japanese farmers engaged in growing rice, sugar, taro, fruits, and vegetables are almost as great as those of the Chinese. The branches of agriculture in which the Japanese show such large relative percentages are found principally in Hawaii. In that territory they lead in coffee and sugar farming, while the Chinese lead in the cultivation of vegetables, fruits, and rice.

Of the Hawaiian, part Hawaiian, and South Sea Island farmers, 53.8 per cent secured their principal income from taro, and 21.1 per cent from coffee. The farms on which these plants were cultivated as principal crops were usually small. The live-stock and sugar farms were the only ones that contained large areas. The percentages of section B of table XCVII serve to indicate indirectly how relatively few farms contribute, to any important extent, to the large areas which give to the farms of Hawaii the high average area, and to which attention has been called.

Of the percentages of section C of table XCVII, those for the Chinese farmers are most noteworthy. Of the farms cultivated by them, 55.7 per cent contained less than 20 acres, and only 2.2 per cent contained over 260 acres; yet of the Chinese farmers only 7.4 per cent reported incomes of less than $100, while 70.3 per cent reported incomes of over $500. Of the whites, 7.7 per cent reported the smaller of those incomes, and only 45.3 per cent the larger. Of the Chinese, 25.0 per cent reported incomes of over $2,500, while of the whites only 3.1 per cent reported such incomes.

The Chinaman, by laborious but very intensive cultivation of the land under his care, secures a large income per acre and also a high per cent upon investment. The percentages of this table, as of the others giving figures of the agricultural operations of the Chinese, illustrate how the white race, in some lines of activity, can take lessons from the Mongolian. For the

Chinese, less than for any other race, is the soil a mine from which the farmer seeks to extract something, but rather a laboratory in which he seeks to combine some of the resources of nature to produce something of value.

The great majority of the white farmers reported incomes varying from $100 to $1,000, there being relatively few very small or very large incomes. The same is true of the negro, although the negro's income averaged much less—probably not exceeding one-half that of the white farmer. The incomes of the Hawaiians agree, approximately, with those of the negroes, and those of the Japanese with those of the whites. No other race approaches the average income of the Chinese farmer. The Indian farmers rank lower in incomes than do even the negroes or the Hawaiians; yet for a race just leaving a life of hunting and fishing and entering upon an industrial career, the figures of the table make a commendable showing.

The figures of section D of table XCVII show the relation of tenure to race of farmers. For all forms of ownership the whites have higher percentages than the general average of the races, and for all forms of farm tenancy their percentages are considerably lower than the average. The negro farmers reverse these conditions. Cash tenants operated 13.1 per cent of all farms, but of all negro farm operators, cash tenants constituted 36.6 per cent. The farms operated by share tenants were 22.2 per cent of the total, but 38.0 per cent of those conducted by negro farmers.

The Indians showed a higher per cent of owners than any other race. Of all farms, those operated by owners constituted 54.9 per cent; of the farms of Indians, owners operated 90.4 per cent. The percentages of tenant-operated farms were correspondingly small.

The Chinese and Japanese farmers were largely tenants, 88.6 per cent of the Chinese and 90.7 per cent of the Japanese being of that class. Far the greater part of these were cash tenants. The tenants of the Chinese race form an exception to tenant farmers as a class, in that the incomes which they report are relatively larger than for any group of farmers operating their own farms.

The Hawaiians correspond in tenure more closely to the white than to any other race, the only exceptional feature, in addition to the remarkably small proportion of share tenants, being the large relative number of part owners. The greater number of these part owners were farmers who owned small tracts of land, and, in addition, rented land from the Government. It should be mentioned, in this connection, that the law under which this land is leased is so framed as to encourage its ultimate purchase by the cultivators of small tracts.

The general facts shown in table XCVII are further elucidated in Plate 18, to which attention is called.

NUMBER AND CHARACTER OF FARMS OPERATED BY WHITE FARMERS.

Table 1 gives, by states and territories, the number of farms of white farmers in ten specified groups of farms by area. Tables 2 and 3 classify the number of farms operated by white farmers, June 1, 1900, according to tenure, principal source of income, and amount of income. Table XCVIII presents a classified summary of farms operated by white farmers, by geographic divisions.

TABLE XCVIII.—NUMBER OF FARMS, JUNE 1, 1900, OPERATED BY WHITE FARMERS, IN SPECIFIED GROUPS, OF FARMS CLASSIFIED BY AREA, PRINCIPAL SOURCE OF INCOME, VALUE OF PRODUCTS OF 1899 NOT FED TO LIVE STOCK, AND TENURE, BY GEOGRAPHIC DIVISIONS.

A.—FARMS CLASSIFIED BY AREA IN ACRES.

GROUPS OF FARMS.	The United States.	GEOGRAPHIC DIVISIONS.					
		North Atlantic.	South Atlantic.	North Central.	South Central.	Western.	Alaska and Hawaii.
Total	4,970,129	675,366	673,354	2,179,667	1,206,367	234,854	521
Under 3	36,105	9,047	3,341	12,630	5,331	5,720	36
3 and under 10	172,802	41,882	26,910	56,369	35,614	11,945	82
10 and under 20	284,204	51,453	46,174	74,953	94,872	16,656	96
20 and under 50	919,088	117,567	144,341	335,907	279,667	32,503	103
50 and under 100	1,229,176	191,301	162,121	559,819	288,576	27,324	35
100 and under 175	1,352,043	177,288	152,590	654,256	299,745	68,132	32
175 and under 260	472,597	56,591	66,845	240,348	92,697	16,097	19
260 and under 500	367,658	25,146	49,238	193,143	69,666	30,448	17
500 and under 1,000	99,313	4,036	16,129	41,003	23,594	14,543	8
1,000 and over	46,143	1,055	5,665	11,239	16,605	11,486	93

B.—FARMS CLASSIFIED BY PRINCIPAL SOURCE OF INCOME.

Hay and grain	1,260,475	79,299	120,624	790,569	201,421	68,560	2
Vegetables	138,866	43,681	20,423	46,807	17,115	10,824	16
Fruits	79,514	19,688	9,982	20,063	7,524	22,225	32
Live stock	1,527,996	170,653	121,995	911,559	255,870	67,843	67
Dairy produce	352,055	174,684	10,722	107,931	31,294	27,402	22
Tobacco	86,781	5,790	33,248	10,490	37,252	1	.....
Cotton	543,449	.....	166,314	2,116	375,019	.....	.....
Rice	3,090	.....	585	.....	2,500	.....	5
Sugar	6,164	123	247	1,242	3,569	881	102
Flowers and plants	6,133	3,227	313	1,971	272	350	.....
Nursery products	2,021	493	168	836	285	239	.....
Taro	36	.....	.....	.....	.....	.....	36
Coffee	181	.....	.....	.....	.....	.....	181
Miscellaneous	963,368	177,728	188,733	286,083	274,246	36,529	49

TABLE XCVIII.—NUMBER OF FARMS JUNE 1, 1900, OPERATED BY WHITE FARMERS, IN SPECIFIED GROUPS CLASSIFIED BY AREA, PRINCIPAL SOURCE OF INCOME, VALUE OF PRODUCTS OF 1899 NOT FED TO LIVE STOCK, AND TENURE, BY GEOGRAPHIC DIVISIONS—Continued.

C.—FARMS CLASSIFIED BY VALUE OF PRODUCTS OF 1899 NOT FED TO LIVE STOCK.

GROUPS OF FARMS.	The United States.	GEOGRAPHIC DIVISIONS.					
		North Atlantic.	South Atlantic.	North Central.	South Central.	Western.	Alaska and Hawaii.
$0	41,267	2,311	3,887	13,291	13,377	8,382	19
$1 and under $50	112,489	12,221	21,842	32,150	37,662	8,594	26
$50 and under $100	229,127	27,632	45,287	70,641	73,259	12,326	32
$100 and under $250	994,371	123,124	191,414	312,197	329,173	38,342	121
$250 and under $500	1,345,054	174,903	219,689	502,645	400,343	47,380	94
$500 and under $1,000	1,281,353	188,281	130,378	660,818	251,749	50,052	75
$1,000 and under $2,500	813,898	126,224	51,579	505,945	85,052	45,033	65
$2,500 and over	152,570	20,670	9,328	81,980	15,752	24,745	95

D.—FARMS CLASSIFIED BY TENURE.

Owners	2,974,497	488,722	404,210	1,262,253	656,349	162,680	283
Part owners	420,916	27,061	32,597	264,574	72,574	24,069	41
Owners and tenants	51,717	6,326	5,589	25,885	12,487	1,430	.....
Managers	57,353	13,051	8,145	19,499	9,027	7,539	92
Cash tenants	477,100	66,042	72,102	206,006	114,986	17,866	98
Share tenants	988,546	74,164	150,711	401,450	340,944	21,270	7

White farmers are included in every group of farms shown in the classifications adopted by the Twelfth Census, and as these farmers constitute the great majority of every class, the facts shown in table XCVIII have already been passed in review in the discussion of preceding tables.

Comparing the number of farms operated by white farmers, as given in table XCVIII, with all farms for the various groups of that table, certain percentages are obtained which are given in table XCIX. They show, for each subgroup used in the classifications of this report, the proportion of farms operated by white farmers. These proportions are given for the United States as well as for the geographic divisions.

TABLE XCIX.—PER CENT OF ALL FARMS, JUNE 1, 1900, IN SPECIFIED GROUPS CLASSIFIED BY AREA, PRINCIPAL SOURCE OF INCOME, VALUE OF PRODUCTS OF 1899 NOT FED TO LIVE STOCK, AND TENURE, WHICH WERE OPERATED BY WHITE FARMERS, BY GEOGRAPHIC DIVISIONS.

A.—FARMS CLASSIFIED BY AREA IN ACRES.

GROUPS OF FARMS.	The United States.	GEOGRAPHIC DIVISIONS.					
		North Atlantic.	South Atlantic.	North Central.	South Central.	Western.	Alaska and Hawaii.
All farms	86.6	99.7	70.0	99.2	72.8	96.7	22.8
Under 3	86.2	99.4	53.9	98.2	78.7	88.8	7.2
3 and under 10	76.3	99.1	49.6	97.5	61.1	90.4	11.4
10 and under 20	69.8	99.3	53.3	97.3	54.8	93.1	25.9
20 and under 50	72.4	99.5	54.3	98.5	56.1	95.3	35.6
50 and under 100	90.0	99.8	74.9	99.5	78.7	96.3	27.1
100 and under 175	95.1	99.9	84.2	99.7	88.8	98.1	48.5
175 and under 260	96.4	99.9	88.9	99.7	91.9	98.4	54.3
260 and under 500	97.3	99.9	92.3	99.5	93.4	99.0	41.5
500 and under 1,000	96.8	99.9	93.8	98.2	95.0	98.8	38.1
1,000 and over	97.6	99.9	96.1	97.2	97.2	99.2	80.2

TABLE XCIX.—PER CENT OF ALL FARMS, JUNE 1, 1900, IN SPECIFIED GROUPS CLASSIFIED BY AREA, PRINCIPAL SOURCE OF INCOME, VALUE OF PRODUCTS OF 1899 NOT FED TO LIVE STOCK, AND TENURE, WHICH WERE OPERATED BY WHITE FARMERS, BY GEOGRAPHIC DIVISIONS—Continued.

B.—FARMS CLASSIFIED BY PRINCIPAL SOURCE OF INCOME.

GROUPS OF FARMS.	The United States.	GEOGRAPHIC DIVISIONS.					
		North Atlantic.	South Atlantic.	North Central.	South Central.	Western.	Alaska and Hawaii.
Hay and grain	95.5	99.6	82.4	99.2	89.5	95.4	100.0
Vegetables	89.1	99.2	68.1	98.4	76.9	90.8	14.5
Fruits	96.8	99.6	88.5	98.7	92.7	98.5	27.6
Live stock	97.7	99.7	90.3	99.4	94.2	97.3	38.2
Dairy produce	98.5	99.9	91.9	99.6	89.6	99.2	64.7
Tobacco	81.7	99.8	69.5	98.8	88.7	100.0	.....
Cotton	50.7	.....	50.0	94.3	50.9	.....	.....
Rice	54.0	.....	25.4	.....	85.9	.....	1.0
Sugar	83.9	100.0	81.0	98.7	77.8	97.9	60.0
Flowers and plants	99.6	99.7	98.4	100.0	99.3	97.5	.....
Nursery products	99.6	99.4	99.4	100.0	99.3	99.2	.....
Taro	8.2	.....	.....	.....	.....	.....	8.2
Coffee	35.4	.....	.....	.....	.....	.....	35.4
Miscellaneous	90.9	99.7	77.3	98.8	88.6	96.9	27.4

C.—FARMS CLASSIFIED BY VALUE OF PRODUCTS OF 1899 NOT FED TO LIVE STOCK.

$0	77.3	99.4	61.6	96.1	61.6	91.4	35.8
$1 and under $50	67.1	98.9	44.4	94.5	61.3	81.4	26.3
$50 and under $100	75.0	99.0	54.0	96.5	68.5	90.2	22.2
$100 and under $250	79.7	99.4	65.1	98.3	69.8	95.6	22.6
$250 and under $500	83.9	99.7	71.5	99.3	70.9	98.3	19.6
$500 and under $1,000	92.9	99.8	83.1	99.7	78.8	98.9	18.5
$1,000 and under $2,500	98.1	99.9	93.5	99.9	89.1	99.0	21.6
$2,500 and over	99.0	99.9	97.9	99.9	95.7	98.6	32.6

D.—FARMS CLASSIFIED BY TENURE.

Owners	94.4	99.7	85.2	99.2	88.3	96.2	40.7
Part owners	93.2	99.5	69.5	99.3	83.9	98.7	29.5
Owners and tenants	97.0	99.9	92.0	99.5	93.2	97.3	.....
Managers	96.9	99.5	89.4	99.4	93.5	99.4	71.9
Cash tenants	63.4	99.5	41.8	99.2	40.2	95.1	7.8
Share tenants	77.6	99.7	59.6	99.1	65.6	98.8	10.4

In Alaska and Hawaii white farmers operated 22.8 per cent of all farms. For farms of less than 3 acres their per cent was only 7.2, while for farms of over 1,000 acres it was 80.2, increasing with the area with some degree of regularity. No such marked difference between lowest and highest areas is shown in any other division, but every series of percentages shows an increase nearly as regular as that in Alaska and Hawaii, the figures being lowest for farms of less than 10 acres in the North Atlantic, South Atlantic, and Western divisions, and for those under 20 acres in the North Central and South Central divisions, while they are highest for the largest farms in all cases but one.

Many of the farms with less than 3 acres reported from the South Atlantic states were fruit orchards in Florida, most of which were in the hands of the whites. This group includes also the small dairy and apiary farms, florists' establishments, and poultry farms, which were conducted by white farmers in larger proportion than were farms of from 10 to 20 acres—the area which so many negroes prefer for growing cotton. These factors explain the relatively high figures for white farmers in the group with less than 3 acres in all the divisions except the Western, and Alaska and Hawaii.

The percentages of section B, table xcix, for florists' establishments and nurseries, which are nearly always under white management, are about the same in all the geographic divisions. There is only a slight variation in the per cent for hay and grain farms, as given in table xcix, while there are great variations in farms deriving their principal income from such crops as tobacco, rice, cotton, vegetables, and fruits. Hay and grain farms were less numerous in some sections than in others, but nearly everywhere were conducted mainly by white farmers, hence the small variation in the percentages for these farms in the several geographic divisions. Cotton, on the other hand, was produced in the Southern divisions very largely on farms under colored management. The white farmers of the South operated only a small per cent of the cotton farms, while in Kansas and Missouri, cotton-growing states of the North Central division, there were but few negro farmers, so that the per cent of white farmers was little less for cotton farms than for other farms.

In Hawaii, rice, taro, and coffee were grown principally by Chinese, Japanese, and Hawaiians, hence the per cent of white farmers making those crops their principal source of income was quite low. The same applies also to the growing of vegetables and fruits.

For the Southern divisions the percentages of section C, table xcix, form a nearly regular series, being lowest for farms with small incomes and highest for those with largest incomes, showing that the farmers of the white race largely control the most valuable farms and leave to other races the care of farms affording scantier returns. The series for the North Atlantic, North Central, and Western divisions are equally significant, though not showing such wide variations as in the South. Hawaii is exceptional, since it shows the largest per cent for farms with lowest income and the smallest for those with incomes of from $500 to $1,000.

In the North Atlantic states, where nearly all the farmers are white, there could be but very slight variations in the percentages for the white race as given in section D, table xcix. It is otherwise in Hawaii and in the Southern states. In the South Central division, the whites comprised 88.3 per cent of the owners, 93.2 per cent of the owners and tenants, and 93.5 per cent of the managers, but only 40.2 per cent of the cash tenants and 65.6 per cent of the share tenants. Similar variations were shown in the South Atlantic division. In Hawaii the whites constituted 40.7 per cent of the owners and 71.9 per cent of the managers, but only 10.4 per cent of the share tenants and 7.8 per cent of the cash tenants.

Table c presents, by percentages, the distribution of white farmers among the several groups of the four different classifications.

TABLE C.—PER CENT OF THE NUMBER OF FARMS, JUNE 1, 1900, OPERATED BY WHITE FARMERS, IN SPECIFIED GROUPS OF FARMS CLASSIFIED BY AREA, PRINCIPAL SOURCE OF INCOME, VALUE OF PRODUCTS OF 1899 NOT FED TO LIVE STOCK, AND TENURE, BY GEOGRAPHIC DIVISIONS.

A.—FARMS CLASSIFIED BY AREA IN ACRES.

GROUPS OF FARMS.	The United States.	GEOGRAPHIC DIVISIONS.					
		North Atlantic.	South Atlantic.	North Central.	South Central.	Western.	Alaska and Hawaii.
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Under 3	0.7	1.3	0.5	0.6	0.4	2.4	6.9
3 and under 10	3.5	6.2	4.0	2.6	2.9	5.1	15.7
10 and under 20	5.7	7.6	6.9	3.4	7.9	7.1	18.4
20 and under 50	18.3	17.4	21.4	15.4	23.2	13.8	19.8
50 and under 100	24.8	28.3	24.1	25.7	23.9	11.6	6.7
100 and under 175	27.2	26.3	22.7	30.0	24.8	29.0	6.1
175 and under 260	9.5	8.4	9.9	11.0	7.7	6.9	3.7
260 and under 500	7.4	3.7	7.3	8.9	5.8	13.0	3.3
500 and under 1,000	2.0	0.6	2.4	1.9	2.0	6.2	1.5
1,000 and over	0.9	0.2	0.8	0.5	1.4	4.9	17.9

B.—FARMS CLASSIFIED BY SOURCE OF INCOME.

Hay and grain	25.4	11.7	17.9	36.3	16.7	29.2	0.4
Vegetables	2.8	6.5	3.0	2.1	1.4	4.6	8.1
Fruits	1.6	2.9	1.5	0.9	0.6	9.5	6.1
Live stock	30.7	25.3	18.1	41.8	21.2	28.9	14.6
Dairy produce	7.1	25.9	1.6	5.0	2.6	11.7	4.2
Tobacco	1.8	0.8	5.0	0.5	3.1	(1)	.....
Cotton	10.9	.....	24.7	0.1	31.1	.....	.....
Rice	0.1	.....	0.1	.....	0.2	.....	1.0
Sugar	0.1	(1)	(1)	0.1	0.3	0.4	19.6
Flowers and plants	0.1	0.5	0.1	0.1	(1)	0.1	.....
Nursery products	(1)	0.1	(1)	(1)	(1)	0.1	.....
Taro	.....	.....	.....	.....	.....	.....	6.9
Coffee	.....	.....	.....	.....	.....	.....	34.7
Miscellaneous	19.4	26.3	28.0	13.1	22.8	15.5	9.4

[1] Less than one-tenth of 1 per cent.

TABLE C.—PER CENT OF THE NUMBER OF FARMS, JUNE 1, 1900, OPERATED BY WHITE FARMERS, IN SPECIFIED GROUPS OF FARMS CLASSIFIED BY AREA, PRINCIPAL SOURCE OF INCOME, VALUE OF PRODUCTS OF 1899 NOT FED TO LIVE STOCK, AND TENURE, BY GEOGRAPHIC DIVISIONS—Continued.

C.—FARMS CLASSIFIED BY VALUE OF PRODUCTS OF 1899 NOT FED TO LIVE STOCK.

GROUPS OF FARMS.	The United States.	GEOGRAPHIC DIVISIONS.					
		North Atlantic.	South Atlantic.	North Central.	South Central.	Western.	Alaska and Hawaii.
$0	0.8	0.3	0.6	0.6	1.1	3.6	3.7
$1 and under $50	2.3	1.8	3.2	1.5	3.1	3.7	3.8
$50 and under $100	4.6	4.1	6.7	3.2	6.1	5.2	6.1
$100 and under $250	20.0	18.2	28.4	14.3	27.3	16.3	23.2
$250 and under $500	27.0	25.9	32.6	23.1	33.2	20.2	18.1
$500 and under $1,000	25.8	27.9	19.4	30.3	20.9	21.3	14.4
$1,000 and under $2,500	16.4	18.7	7.7	23.2	7.0	19.2	12.5
$2,500 and over	3.1	3.1	1.4	3.8	1.3	10.5	18.2

D.—FARMS CLASSIFIED BY TENURE.

Owners	59.3	72.4	60.0	57.9	54.4	69.3	54.3
Part owners	8.5	4.0	4.9	12.1	6.0	10.2	7.9
Owners and tenants	1.0	0.9	0.8	1.2	1.0	0.6	.....
Managers	1.2	1.9	1.2	0.9	0.8	3.2	17.7
Cash tenants	9.6	9.8	10.7	9.5	9.5	7.6	18.8
Share tenants	19.9	11.0	22.4	18.4	28.3	9.1	1.3

White farmers operated the greatest relative number of very small farms in Alaska and Hawaii and the least in the South Central states, the per cent of farms of less than 3 acres in the former being 6.9, and in the latter only 0.4; for farms of 3 and under 10 acres the highest per cent is found in Alaska and Hawaii and the lowest in the North Central division, the two being 15.7 and 2.6, respectively. For the average farm of the United States, that found in the group of 100 to 175 acres, the highest per cent was for the North Central division and the lowest for Alaska and Hawaii, the former being 30.0 and the latter 6.1. Alaska and Hawaii had the highest per cent of farms of largest area as it had also of farms of smallest area. It reported 17.9 per cent of the largest farms, while the Western division reported but 4.9 per cent.

The North Central states reported the greatest per cent of hay and grain farms, 36.3, and Alaska and Hawaii the least, 0.4. The same two divisions reported the maximum and minimum per cent of live stock farms, 41.8 and 14.6, respectively.

The cultivation of vegetables as a principal source of income supported relatively more white farmers in the North Atlantic states than elsewhere. The relative importance of the trucking interest among white farmers in various portions of the country may be observed by noting the following percentages for vegetable farms: North Atlantic division, 6.5; Western, 4.6; Alaska and Hawaii, 3.1; South Atlantic, 3.0; North Central, 2.1; and South Central, 1.4. These percentages do not measure the actual relative importance of the industry among white farmers in the six divisions, but rather the state of the development of the industry in those divisions as compared with the development of other branches of farming.

The dairy industry was the principal source of income of 25.9 per cent of the white farmers of the North Atlantic states, 11.7 per cent of those in the Western, 5.0 per cent of those in the North Central, 4.2 per cent of those in Alaska and Hawaii, 2.6 per cent of those in the South Central, and 1.6 per cent of those in the South Atlantic states. Cotton was the principal source of income of the greater proportion of the farmers of the South Atlantic and South Central states, and coffee, sugar, taro, and rice, of those of Alaska and Hawaii.

The per cent of farms of white farmers with small income or no income, was lowest in the North Atlantic division and highest in the South Central and Western divisions and in Alaska and Hawaii. Of the farmers of the North Atlantic division, 21.8 per cent reported farm incomes of $1,000 and over. The corresponding percentages for the other divisions were as follows: South Atlantic, 9.1; North Central, 27.0; South Central, 8.3; Western, 29.7; and Alaska and Hawaii, 30.7. The two Southern divisions, therefore, had much smaller relative numbers of white farmers with large income.

The largest per cent of white cash tenant farmers was found in Alaska and Hawaii and the smallest in the Western states. In the former they constituted 18.8 per cent and in the latter 7.6 per cent of all farms operated by white farmers. The highest per cent of share tenants was reported from the South Central, and with the exception of Alaska and Hawaii, the highest per cent of cash tenants from the South Atlantic states. The highest per cent of white managers was found in the Hawaiian Islands, and the next highest in the Western states and territories. Part owners also were relatively numerous in the Western division and in Hawaii, but most numerous in the North Central states.

Table CI presents, by geographic divisions, the average area of farms of white farmers of six specified tenures.

TABLE CI.—AVERAGE AREA, IN ACRES, OF FARMS OF WHITE FARMERS OF DIFFERENT TENURES, JUNE 1, 1900, BY GEOGRAPHIC DIVISIONS.

GEOGRAPHIC DIVISIONS.	All farms.	Owners.	Part owners.	Owners and tenants.	Managers.	Cash tenants.	Share tenants.
The United States	160.7	137.4	291.5	174.1	1,547.3	134.4	106.9
North Atlantic	96.7	90.0	129.1	125.5	175.6	86.8	121.3
South Atlantic	131.7	146.9	128.1	171.7	400.3	109.1	86.5
North Central	144.6	128.3	230.7	177.9	453.0	123.2	132.9
South Central	194.6	165.2	477.7	171.2	5,274.9	159.9	68.9
Western	395.8	213.7	797.2	354.7	3,317.2	378.2	316.9
Alaska and Hawaii	3,997.0	785.0	2,885.0	.....	18,840.9	84.1	54.1

This table, by the variations in the average size of managed farms, calls attention to the difference in the character of these farms in the various geographic divisions. In the North Atlantic division they are nearly all farms connected with public institutions, or the country homes of business men with offices in cities. Their average area in this division is not so very much greater than that of the farms of owners or tenants, while in the Western states and in Alaska and Hawaii, where the operators of managed farms are engaged in the keeping of live stock or in the production of sugar, managers control great areas of land.

Except in Alaska and Hawaii and in the Western division, the average area of farms of cash tenants does not greatly vary from that of farms operated by owners. As a rule, the areas of farms of all tenures were greater in the South and West than in the North and East.

Table 13 presents, by states and territories, the statistics of the number of farms of white farmers classified by tenure, also the acreage, value, product, and expenditures of such farms, with averages and percentages. Table CII presents a summary, by states and territories, of the same facts for farms of white farmers of all tenures.

TABLE CII.—NUMBER AND ACREAGE OF FARMS OF WHITE FARMERS AND VALUE OF SPECIFIED CLASSES OF BY STATES AND

	STATES AND TERRITORIES.	NUMBER OF FARMS.		ACREAGE, JUNE 1, 1900.			VALUE OF FARM PROPERTY, JUNE 1, 1900.				
		Total.	With buildings.	Total.	Improved.	Per cent of improved.	Total.	Land and improvements (except buildings).	Buildings.	Implements and machinery.	Live stock.
1	The United States	4,970,120	4,801,020	798,908,187	390,453,972	48.9	$19,961,431,889	$12,759,880,225	$3,483,554,579	$740,293,950	$2,977,703,135
2	North Atlantic division	675,366	664,742	65,301,850	38,850,846	59.5	2,944,993,372	1,500,245,063	972,240,105	152,556,920	319,951,284
3	Maine	59,270	58,107	6,298,591	2,386,428	37.9	122,383,844	49,346,700	47,133,050	8,801,210	17,102,884
4	New Hampshire	29,314	28,785	3,609,302	1,076,698	29.8	85,829,476	35,494,020	34,620,250	5,162,240	10,552,966
5	Vermont	33,096	32,559	4,723,194	2,125,953	45.0	108,391,077	45,770,905	37,247,515	7,537,060	17,835,597
6	Massachusetts	37,605	36,593	3,141,734	1,289,926	41.1	182,418,082	86,811,250	71,005,310	8,819,920	15,781,602
7	Rhode Island	5,470	5,373	453,518	186,520	41.1	26,923,739	13,384,620	9,683,540	1,286,920	2,588,659
8	Connecticut	26,839	26,401	2,307,890	1,062,655	46.0	113,074,058	52,314,358	44,903,870	4,940,700	10,915,130
9	New York	225,935	223,068	22,600,592	15,548,986	68.9	1,067,898,391	550,167,610	336,445,000	55,901,670	125,384,111
10	New Jersey	34,180	33,574	2,821,755	1,962,855	69.6	188,485,172	92,833,300	68,859,590	9,276,480	17,515,802
11	Pennsylvania	223,657	220,291	19,345,274	13,190,825	68.2	1,049,589,533	571,122,300	322,341,980	50,850,720	102,274,533
12	South Atlantic division	673,354	652,101	88,660,241	37,204,364	42.0	1,290,615,145	793,187,230	279,774,630	47,420,860	170,232,425
13	Delaware	8,869	8,741	1,013,662	719,391	71.0	39,302,838	22,897,750	10,364,040	2,077,280	3,933,768
14	Maryland	40,169	39,632	4,795,774	3,277,581	68.3	196,435,535	115,518,630	52,773,320	8,279,570	19,864,015
15	District of Columbia	252	250	8,181	5,702	69.7	11,230,781	9,423,930	1,557,560	126,270	123,024
16	Virginia	123,052	120,300	17,678,765	8,969,347	50.7	298,986,961	186,133,370	65,462,380	8,979,760	38,411,451
17	West Virginia	92,132	89,624	10,612,929	5,475,915	51.6	203,079,638	133,715,440	33,892,370	5,018,670	30,453,158
18	North Carolina	169,773	164,641	19,794,218	6,869,859	34.7	291,866,528	122,764,180	47,638,620	8,114,830	26,348,898
19	South Carolina	69,954	66,766	10,192,938	3,501,917	34.4	109,589,887	69,613,670	21,213,300	5,037,000	13,725,917
20	Georgia	141,865	135,969	20,917,083	7,292,998	34.9	179,665,683	105,995,780	38,033,100	8,119,990	27,516,813
21	Florida	27,298	26,178	3,646,691	1,091,548	29.9	47,457,291	27,124,480	8,839,940	1,667,490	9,825,381
22	North Central division	2,179,667	2,104,796	315,138,136	221,577,400	70.3	11,470,586,986	7,842,083,503	1,694,244,955	362,852,130	1,571,406,398
23	Ohio	274,750	266,536	24,396,326	19,158,541	78.5	1,191,618,103	814,011,730	218,878,020	36,234,370	125,493,983
24	Indiana	220,835	213,720	24,366,113	16,636,963	77.1	976,225,182	685,850,420	153,809,420	27,268,700	109,296,642
25	Illinois	262,662	253,893	32,711,516	27,634,970	84.5	2,000,987,066	1,511,526,940	251,127,370	44,890,900	193,441,856
26	Michigan	202,288	197,122	17,508,295	11,765,500	67.2	688,605,612	422,410,480	158,640,110	28,723,990	78,831,032
27	Wisconsin	169,275	165,824	19,806,091	11,233,903	56.7	810,661,814	529,752,690	155,486,570	29,195,120	96,227,434
28	Minnesota	154,287	148,717	26,182,627	18,425,564	70.4	787,795,188	568,639,380	110,128,225	30,055,960	88,971,623
29	Iowa	228,395	220,121	34,558,319	29,884,658	86.5	1,833,523,669	1,256,179,370	240,699,730	57,931,230	278,710,339
30	Missouri	279,933	270,861	33,726,480	22,704,491	67.4	1,025,151,594	689,614,693	147,644,630	28,382,160	159,510,111
31	North Dakota	43,168	42,329	15,381,354	9,660,293	62.4	253,831,652	173,000,480	25,244,910	13,942,000	41,647,262
32	South Dakota	50,816	48,610	17,957,655	11,201,609	62.4	292,263,719	185,906,790	30,650,130	11,966,760	63,740,039
33	Nebraska	121,196	114,234	29,865,004	18,414,267	61.7	747,010,547	485,912,260	90,964,960	24,904,900	145,228,427
34	Kansas	171,232	162,529	41,176,323	24,913,644	60.4	869,909,840	529,278,270	110,970,880	29,353,040	190,307,650
35	South Central division	1,206,367	1,155,167	234,764,064	65,689,122	28.0	2,491,190,338	1,457,853,993	367,924,688	114,004,090	551,407,567
36	Kentucky	223,429	215,762	21,531,566	13,400,805	62.2	460,091,384	283,885,870	89,163,480	14,946,090	72,095,944
37	Tennessee	190,728	183,185	18,791,962	9,209,149	49.0	314,459,889	185,058,000	59,502,600	13,962,280	55,937,009
38	Alabama	129,137	123,926	15,965,260	5,591,088	35.0	132,481,529	71,087,761	28,317,172	6,747,650	26,328,946
39	Mississippi	92,124	87,082	12,337,537	3,844,667	31.2	117,733,593	59,801,040	25,511,290	6,258,830	26,162,433
40	Louisiana	57,869	55,351	8,711,079	3,092,009	35.5	160,596,608	83,520,380	27,812,260	27,096,000	22,077,968
41	Texas	286,654	270,804	121,965,376	17,145,581	14.1	906,237,063	554,098,202	93,063,891	27,954,125	231,120,845
42	Oklahoma	59,324	57,537	15,217,347	5,358,523	35.2	179,895,037	106,807,780	13,318,845	6,381,055	53,387,357
43	Indian Territory	35,451	34,918	5,910,840	2,468,748	41.8	72,564,746	31,151,190	5,376,880	3,149,860	32,886,816
44	Arkansas	131,711	126,662	14,333,097	5,578,549	38.9	147,220,489	82,443,770	25,858,270	7,508,200	31,410,249
45	Western division	234,854	223,716	92,961,460	26,879,574	28.9	1,695,791,845	1,114,591,635	166,281,491	52,086,620	362,832,069
46	Montana	13,042	12,557	11,801,728	1,716,407	14.5	116,727,511	52,256,710	9,275,930	3,591,400	51,603,471
47	Wyoming	5,922	5,292	8,101,350	799,591	9.8	67,377,951	23,401,660	3,517,390	1,364,510	39,094,391
48	Colorado	24,627	23,460	9,461,241	2,271,191	24.0	160,887,308	90,234,723	15,982,112	4,740,175	49,930,298
49	New Mexico	10,893	9,143	5,049,808	303,074	6.0	52,935,613	16,947,519	3,547,785	1,094,670	31,345,639
50	Arizona	4,066	3,604	1,889,376	226,809	12.0	27,904,720	10,791,640	2,225,780	692,830	14,194,470
51	Utah	19,144	18,051	4,097,153	1,025,841	25.0	74,768,914	39,945,070	10,611,470	2,903,960	21,807,544
52	Nevada	2,011	1,913	2,558,120	569,474	22.3	28,531,068	13,201,500	2,329,450	878,660	12,121,458
53	Idaho	16,876	16,219	3,101,553	1,377,941	44.4	65,685,168	34,760,413	6,700,160	3,167,810	21,056,785
54	Washington	32,112	31,217	8,378,339	3,433,549	41.0	141,831,986	98,026,560	16,087,110	6,142,770	21,575,546
55	Oregon	35,286	34,470	9,864,481	3,285,068	33.3	171,531,997	112,256,790	19,105,204	6,455,545	33,714,458
56	California	70,935	67,790	28,658,311	11,879,826	41.5	787,610,449	622,769,050	76,899,100	21,054,290	66,888,009
57	Alaska	12	9	159	159	100.0	15,686	(1)	12,800	690	2,196
58	Hawaii	509	489	2,082,277	252,507	12.1	68,238,547	51,918,801	3,075,910	11,372,640	1,871,196

[1] Less than $1.

FARM PROPERTY, VALUE OF PRODUCTS, AND EXPENDITURES FOR LABOR AND FERTILIZERS, WITH AVERAGES, TERRITORIES.

VALUE OF PRODUCTS, 1899.				EXPENDITURES, 1899.		AVERAGE VALUES PER FARM.							Average value per acre of products of 1899 not fed.	AVERAGE EXPENDITURES PER FARM, 1899.		
						Farm property, June 1, 1900.					Products, 1899.					
Total.	Fed to live stock.	Not fed to live stock.	Per cent not fed, to value of property.	Labor.	Fertilizers.	Total.	Land and improvements (except buildings).	Buildings.	Implements and machinery.	Live stock.	Total.	Not fed to live stock.		Labor.	Fertilizers.	
$4,471,019,160	$947,625,024	$3,523,394,136	17.7	$354,665,540	$49,099,939	$4,016	$2,567	$701	$149	$599	$900	$709	$4.41	$71	$10	1
665,287,700	171,670,450	493,617,250	16.8	71,104,860	15,610,835	4,361	2,221	1,440	226	474	985	731	7.56	105	23	2
97,104,376	9,846,450	27,257,925	22.3	2,666,870	819,550	2,065	833	795	148	289	626	460	4.33	45	14	3
21,926,218	6,009,860	15,916,358	18.5	2,304,290	367,890	2,928	1,211	1,181	176	360	748	543	4.41	79	13	4
33,556,362	11,572,230	21,984,132	20.3	3,132,460	446,975	3,275	1,383	1,125	228	539	1,014	664	4.65	95	14	5
42,243,124	8,255,200	33,987,924	18.6	7,481,500	1,319,600	4,851	2,308	1,888	235	420	1,123	904	10.82	199	35	6
6,322,774	967,920	5,354,854	19.9	1,030,510	263,070	4,922	2,447	1,770	232	473	1,156	979	11.81	188	48	7
28,230,228	6,169,790	22,060,438	19.5	4,097,610	1,076,190	4,213	1,949	1,673	184	407	1,052	822	9.56	153	40	8
244,888,090	63,324,480	181,563,610	17.0	27,076,290	4,487,200	4,727	2,436	1,489	248	555	1,084	804	8.03	120	20	9
43,404,239	8,550,960	34,853,279	18.5	6,693,900	2,152,200	5,514	2,716	2,015	271	512	1,270	1,020	12.35	196	63	10
207,612,290	56,973,560	150,638,730	14.4	16,621,430	4,678,160	4,693	2,567	1,441	228	457	928	673	7.79	74	21	11
377,826,532	53,625,340	324,201,192	25.1	33,403,540	18,073,890	1,917	1,178	416	70	253	561	481	3.66	50	27	12
8,945,887	1,818,550	7,127,337	18.1	1,049,510	519,710	4,431	2,582	1,168	234	447	1,009	804	7.03	118	59	13
41,826,219	8,409,750	33,416,469	17.0	5,562,360	2,502,260	4,890	2,876	1,314	206	494	1,041	832	6.97	138	62	14
852,601	23,950	828,651	7.4	195,220	22,080	44,567	37,397	6,181	501	488	3,383	3,288	101.29	775	88	15
76,661,745	11,694,440	64,967,305	21.7	7,360,350	3,267,660	2,430	1,513	532	73	312	623	528	3.67	60	27	16
44,568,969	8,127,530	36,441,439	17.9	2,033,840	403,010	2,204	1,451	368	54	331	484	396	3.43	22	4	17
74,309,790	8,727,330	65,582,460	32.0	4,939,200	3,634,310	1,207	723	281	48	155	438	386	3.31	29	21	18
41,676,870	3,806,670	37,870,200	34.6	4,896,730	2,989,860	1,567	995	304	72	196	596	541	3.72	70	43	19
74,360,686	9,391,330	64,969,356	36.2	6,031,660	4,054,010	1,266	747	268	57	194	524	458	3.11	43	29	20
14,623,765	1,625,790	12,997,975	27.4	1,334,670	680,990	1,739	994	324	61	360	536	476	3.56	49	25	21
2,353,385,160	567,137,560	1,786,247,600	15.6	143,044,040	7,257,405	5,263	3,598	777	167	721	1,080	820	5.67	66	3	22
256,081,996	56,053,040	200,028,956	16.7	14,456,760	2,686,840	4,348	2,963	796	132	457	933	729	8.20	53	10	23
203,944,696	48,362,680	155,582,016	15.9	9,663,860	1,549,850	4,421	3,106	697	123	495	924	705	7.21	44	7	24
345,006,861	81,751,810	263,255,051	13.2	22,148,140	830,240	7,618	5,755	956	171	736	1,314	1,003	8.05	84	3	25
146,184,951	36,673,110	109,511,841	15.9	10,698,100	492,150	3,404	2,088	784	142	390	723	542	6.25	53	2	26
157,341,623	41,552,550	115,789,073	14.3	10,465,080	294,290	4,789	3,130	919	172	568	930	684	5.85	62	2	27
161,089,814	33,224,110	127,865,704	16.2	16,650,970	250,770	5,106	3,621	714	195	576	1,044	829	4.88	108	2	28
365,247,188	101,985,280	263,261,908	14.4	16,368,120	337,100	8,028	5,500	1,054	254	1,220	1,599	1,153	7.62	72	1	29
217,460,840	57,512,520	159,948,320	15.6	9,739,000	368,790	3,662	2,464	527	101	570	777	571	4.74	35	1	30
63,962,414	10,219,420	53,742,994	21.2	9,200,170	13,855	5,769	3,932	574	317	946	1,454	1,222	3.49	209	(1)	31
65,543,699	13,263,990	52,279,709	17.9	5,512,780	12,920	5,751	3,658	603	236	1,254	1,290	1,029	2.91	108	(1)	32
162,585,876	37,995,010	124,590,866	16.7	7,396,710	153,080	6,164	4,009	751	206	1,198	1,342	1,028	4.17	61	1	33
208,935,202	48,544,040	160,391,162	18.7	10,744,350	267,520	5,022	3,091	648	172	1,111	1,220	937	3.87	63	2	34
722,677,119	107,846,096	614,831,023	24.7	44,462,525	5,779,496	2,065	1,208	305	95	457	599	510	2.62	37	5	35
119,755,665	20,648,800	99,106,865	21.5	6,499,240	892,460	2,059	1,270	399	67	323	536	444	4.60	29	4	36
95,075,640	17,009,000	78,066,640	24.8	4,486,700	858,240	1,649	970	312	73	294	498	409	4.15	24	4	37
61,681,604	7,306,180	54,375,424	41.0	3,119,230	2,055,460	1,026	551	219	52	204	478	421	3.41	24	16	38
50,493,958	7,275,890	43,218,068	36.7	2,580,350	716,920	1,278	649	277	68	284	548	469	3.50	28	8	39
51,659,682	4,713,240	46,946,442	29.2	10,030,570	998,480	2,776	1,445	481	468	382	894	812	5.39	174	17	40
215,434,934	27,649,980	187,784,954	20.7	11,719,405	111,526	3,161	1,933	326	97	806	752	655	1.54	41	(1)	41
44,459,486	7,904,736	36,554,750	20.3	2,329,600	.....	3,032	1,800	224	108	900	749	616	2.40	39	.....	42
22,437,260	3,690,640	18,746,620	25.8	1,075,820	.....	2,047	879	152	89	927	633	529	3.17	30	.....	43
61,678,890	11,647,630	50,031,260	34.0	2,621,610	146,470	1,118	626	196	57	239	468	380	3.49	20	1	44
332,224,050	47,345,148	284,878,902	16.8	55,365,164	1,054,016	7,221	4,746	708	222	1,545	1,415	1,214	3.06	236	4	45
28,315,987	4,984,690	23,331,297	20.0	5,037,240	3,650	8,950	4,007	711	275	3,957	2,171	1,789	1.98	386	(1)	46
11,896,115	1,944,370	9,951,745	14.8	2,614,980	12,700	11,378	3,952	594	230	6,602	2,009	1,681	1.23	442	2	47
33,012,706	6,175,830	26,836,876	16.7	4,099,305	22,925	6,533	3,664	649	193	2,027	1,341	1,090	2.84	166	1	48
9,995,755	1,001,170	8,994,585	17.0	1,947,300	2,880	4,860	1,556	326	100	2,878	918	826	1.78	179	(1)	49
6,732,454	790,963	5,941,491	21.3	1,131,480	2,921	6,966	2,694	556	173	3,543	1,681	1,483	3.14	282	1	50
16,440,141	2,948,040	13,492,101	18.0	1,833,130	14,300	3,906	2,087	554	152	1,113	859	705	3.29	96	1	51
6,722,087	1,560,010	5,162,077	18.1	1,379,590	.....	14,188	6,565	1,158	437	6,028	3,343	2,567	2.02	686	.....	52
17,784,325	3,315,344	14,468,981	22.0	2,209,405	14,580	3,892	2,060	397	187	1,248	1,054	857	4.67	131	1	53
34,324,685	5,064,180	29,260,505	20.6	5,220,960	28,535	4,417	3,053	501	191	672	1,069	911	3.49	163	1	54
37,854,949	6,158,541	31,696,408	18.5	4,790,064	26,775	4,861	3,181	541	183	956	1,073	898	3.21	136	1	55
129,144,846	13,402,010	115,742,836	14.7	25,101,710	924,750	11,103	8,779	1,084	297	943	1,821	1,632	4.04	354	13	56
8,048	430	7,618	48.6	825	.....	1,307	(2)	1,067	57	183	671	635	47.91	69	.....	57
19,610,551	.....	19,610,551	28.7	7,284,586	1,324,297	134,064	102,002	6,043	22,343	3,676	38,528	38,528	9.42	14,312	2,602	58

[2] No titles to land.

Of the farms of white farmers, those in the North Central states had the greatest per cent of improved land. In that division the improved land constituted 70.3 per cent of the area of all farm land, varying from 56.7 per cent in Wisconsin to 86.5 per cent in Iowa.

The South Atlantic division reported for white farmers 42.0 per cent of improved land. Outside of the District of Columbia, the highest proportion was found in Delaware and Maryland, with 71.0 and 68.3 per cent, respectively; and the lowest proportion was reported by South Carolina and Florida, with 34.4 and 29.9 per cent, respectively.

In the Western division the per cent of improved land was 28.9 and in the South Central 28.0. In the Western division the states with the highest per cent of improved lands for farms of white farmers were Idaho and California, with 44.4 and 41.5, respectively. The lowest in that division were New Mexico and Wyoming, with 6.0 and 9.8 per cent, respectively. In the South Central division Kentucky and Tennessee, with 62.2 and 49.0 per cent, respectively, were highest, and Mississippi and Texas, with 31.2 and 14.1 per cent, respectively, were lowest. In Hawaii the improved land constituted only 12.1 per cent of the area of all farms of white farmers.

In the North Atlantic, North Central, and Western states the total and average values per farm and per acre for farms of white farmers varied but little from those for all farms. The discussion of the same subjects for the South Atlantic and South Central states can be conducted to greater advantage when comparisons are made between the white and negro races, which is done in connection with table CVII, giving for the negro race facts which correspond with those presented for whites in table CII.

NUMBER AND CHARACTER OF FARMS OPERATED BY NEGRO FARMERS.

Table 14 gives, by states and territories, the statistics of the farms of colored farmers, classified by tenure. The percentages and averages given represent, for the Southern states, the agricultural operations of the negroes, since in that section they constitute almost all of the colored farmers. Conditions are quite different in the states which have a large relative number of farmers of other colored races. Table CIII shows the number of farms operated by negro farmers in the United States, June 1, 1900, classified by area, character, amount of income, and by tenure, by geographic divisions. Table CIV gives the per cent of farms in the various groups and subgroups operated by negroes.

TABLE CIII.—NUMBER OF FARMS, JUNE 1, 1900, OPERATED BY NEGRO FARMERS, IN SPECIFIED GROUPS OF FARMS CLASSIFIED BY AREA, PRINCIPAL SOURCE OF INCOME, VALUE OF PRODUCTS OF 1899 NOT FED TO LIVE STOCK, AND TENURE, BY GEOGRAPHIC DIVISIONS.

A.—FARMS CLASSIFIED BY AREA IN ACRES.

GROUPS OF FARMS.	The United States.	GEOGRAPHIC DIVISIONS.					
		North Atlantic.	South Atlantic.	North Central.	South Central.	Western.	Alaska and Hawaii
Total	746,717	1,761	287,933	12,255	444,429	337	2
Under 3	4,448	50	2,850	167	1,368	13	.....
3 and under 10	50,833	358	27,270	1,192	21,985	26	2
10 and under 20	119,710	303	40,416	1,616	77,351	24	.....
20 and under 50	343,173	433	120,979	4,422	217,301	38	.....
50 and under 100	134,228	349	54,192	2,651	77,004	32	.....
100 and under 175	66,582	195	28,556	1,512	36,184	135	.....
175 and under 260	16,535	55	8,301	379	7,779	21	.....
260 and under 500	8,715	15	4,086	257	4,332	25	.....
500 and under 1,000	2,007	3	1,055	44	889	16	.....
1,000 and over	486	.....	228	15	236	7	.....

B.—FARMS CLASSIFIED BY PRINCIPAL SOURCE OF INCOME.

Hay and grain	51,170	243	25,562	4,389	20,892	84	.....
Vegetables	15,526	287	9,518	622	5,068	31	.....
Fruits	2,191	59	1,293	255	568	16	.....
Live stock	30,922	437	13,000	3,845	13,536	104	.....
Dairy produce	5,142	201	947	353	3,600	41	.....
Tobacco	19,454	13	14,505	129	4,747	.....	.....
Cotton	526,225	.....	166,146	126	359,953	.....	.....
Rice	2,132	.....	1,722	.....	410	.....	.....
Sugar	1,084	.....	57	16	1,010	.....	1
Flowers and plants	19	10	5	.....	2	2	.....
Nursery products	7	3	1	.....	2	1	.....
Taro	1	.....	.....	.....	.....	.....	1
Miscellaneous	92,844	508	55,117	2,520	34,641	58	.....

C.—FARMS CLASSIFIED BY VALUE OF PRODUCTS OF 1899 NOT FED TO LIVE STOCK.

$0	10,379	12	2,420	138	7,792	17	.....
$1 and under $50	50,794	95	27,170	792	22,709	28	.....
$50 and under $100	73,015	213	38,329	1,544	32,898	31	.....
$100 and under $250	247,478	598	102,225	4,169	140,394	91	1
$250 and under $500	254,490	432	87,552	3,199	163,233	74	.....
$500 and under $1,000	95,506	270	26,498	1,690	66,996	51	1
$1,000 and under $2,500	14,220	127	3,538	653	9,867	35	.....
$2,500 and over	835	14	201	70	540	10	.....

D.—FARMS CLASSIFIED BY TENURE.

Owners	156,372	1,031	69,641	5,078	80,386	234	2
Part owners	29,956	113	14,266	1,766	13,789	22	.....
Owners and tenants	1,471	6	482	128	854	1	.....
Managers	1,744	67	966	109	595	7	.....
Cash tenants	278,560	304	100,523	1,708	170,999	26	.....
Share tenants	283,614	240	102,055	3,466	177,806	47	.....

TABLE CIV.—PER CENT OF ALL FARMS, JUNE 1, 1900, IN SPECIFIED GROUPS OF FARMS CLASSIFIED BY AREA, PRINCIPAL SOURCE OF INCOME, VALUE OF PRODUCTS OF 1899 NOT FED TO LIVE STOCK, AND TENURE, WHICH WERE OPERATED BY NEGRO FARMERS, BY GEOGRAPHIC DIVISIONS.

A.—FARMS CLASSIFIED BY AREA IN ACRES.

GROUPS OF FARMS.	The United States.	GEOGRAPHIC DIVISIONS.					
		North Atlantic.	South Atlantic.	North Central.	South Central.	Western.	Alaska and Hawaii.
All farms	13.0	0.3	29.9	0.6	26.8	0.2	0.1
Under 3	10.6	0.6	46.0	1.3	20.2	0.2	.....
3 and under 10	22.4	0.8	50.2	2.0	37.8	0.2	0.3
10 and under 20	29.4	0.6	46.6	2.1	44.6	0.1	.....
20 and under 50	27.3	0.4	45.6	1.3	43.6	0.1	.....
50 and under 100	9.8	0.2	25.0	0.4	21.0	0.1	.....
100 and under 175	4.7	0.1	15.8	0.2	10.7	0.2	.....
175 and under 260	3.4	0.1	11.1	0.2	7.7	0.1	.....
260 and under 500	2.3	0.1	7.7	0.1	5.8	0.1	.....
500 and under 1,000	2.0	0.1	6.1	0.1	3.6	0.1	.....
1,000 and over	1.1	.....	3.9	0.1	1.4	0.1	.....
B.—FARMS CLASSIFIED BY PRINCIPAL SOURCE OF INCOME.							
Hay and grain	3.9	0.3	17.5	0.5	9.3	0.1	.....
Vegetables	10.0	0.7	31.7	1.3	22.8	0.3	.....
Fruits	2.7	0.3	11.5	1.2	7.0	0.1	.....
Live stock	2.0	0.3	9.6	0.4	5.0	0.2	.....
Dairy produce	1.4	0.1	8.1	0.3	10.3	0.2	.....
Tobacco	18.3	0.2	30.5	1.2	11.3	.....	.....
Cotton	49.1	.....	49.9	5.6	48.9	.....	.....
Rice	37.3	.....	74.6	.....	14.1	.....	.....
Sugar	14.8	.....	18.7	1.3	22.0	.....	0.6
Flowers and plants	0.4	0.3	1.6	.....	0.7	0.6	.....
Nursery products	0.4	0.6	0.6	.....	0.7	0.4	.....
Taro	0.2	.....	.....	.....	.....	.....	0.2
Miscellaneous	8.8	0.2	22.6	0.9	11.2	0.1	.....
C.—FARMS CLASSIFIED BY VALUE OF PRODUCTS OF 1899 NOT FED TO LIVE STOCK.							
$0	19.4	0.5	38.3	1.0	35.9	0.2	.....
$1 and under $50	30.3	0.7	55.3	2.4	37.0	0.3	.....
$50 and under $100	23.9	0.8	45.8	2.1	30.8	0.2	.....
$100 and under $250	19.9	0.5	34.8	1.3	29.8	0.2	0.2
$250 and under $500	15.9	0.2	28.4	0.6	28.9	0.1	.....
$500 and under $1,000	6.9	0.2	16.9	0.3	20.9	0.1	0.3
$1,000 and under $2,500	1.7	0.1	6.5	0.1	10.3	0.1	.....
$2,500 and over	0.5	0.1	2.1	0.1	3.3	(1)	.....
D.—FARMS CLASSIFIED BY TENURE.							
Owners	5.0	0.2	14.7	0.4	10.8	0.1	0.3
Part owners	6.7	0.4	30.4	0.7	16.0	0.1	.....
Owners and tenants	2.8	0.1	8.0	0.5	6.4	0.1	.....
Managers	2.9	0.5	10.6	0.6	6.2	0.1	.....
Cash tenants	36.3	0.5	58.2	0.8	59.8	0.1	7.8
Share tenants	22.3	0.3	40.4	0.9	34.2	0.2	10.4

[1] Less than one-tenth of 1 per cent.

In the North Atlantic states negro farmers operated 0.3 per cent of all farms; in the South Atlantic, 29.9 per cent; North Central, 0.6 per cent; South Central, 26.8 per cent; Western, 0.2 per cent; and in Alaska and Hawaii, 0.1 per cent. In all of these divisions the farms of negroes classified by area were distributed in approximately the same manner. They were relatively most numerous in the groups with small areas, and least numerous in those with largest areas. In the North Atlantic and South Atlantic divisions, and in Hawaii, the highest per cent of farms were in the group with 3 and under 10 acres. In the North Central and South Central divisions, as for the United States, they were relatively most numerous in the group with 10 and under 20 acres.

Of the farms in the United States deriving their principal income from cotton, 49.1 per cent, or very nearly one-half, were operated by negroes. They operated 49.9 per cent of the cotton farms of the South Atlantic division, and 48.9 per cent of those in the South Central division, but only 5.6 per cent of the small number of such farms in the southwestern portion of the North Central states.

Of all rice farms, the negroes cultivated 37.3 per cent; of those in the South Atlantic states they cultivated 74.6 per cent; while of those in the South Central they operated only 14.1 per cent. In the former group of states rice is grown by what may be described as hand culture, similar to that followed by the Chinese and Japanese in Hawaii, where the grain is cut by hand with the scythe or cradle. In the South Central states the present methods of rice cultivation more closely resemble those employed in growing wheat on the irrigated fields of the West, the grain being cut and bound by self-binding reapers. These conditions explain why the direction of such farms in the South Central states is so largely in the hands of white farmers.

The negroes cultivated 14.8 per cent of all sugar farms. Their per cent of such farms in the South Atlantic states was 18.7; in the South Central, 22.0; in the North Central, 1.3, and in Hawaii 0.6. The sugar farms operated by negroes were largely rented farms upon which cane was grown for sale, although in a few cases sugar and sirup were produced. In addition to growing cotton, rice, and sugar, the negroes of the South were extensively engaged in growing vegetables, fruits, and tobacco, and in operating small farms classed as miscellaneous. In other parts of the country their farms seemed to be distributed more or less evenly among the various groups classified by principal source of income.

The incomes of the negro farmers exhibit in each division the characteristics shown for the United States in table XCVI. In the South Atlantic states, of farms with incomes of $1 and under $50, they operated 55.3 per cent, but only 2.1 per cent of those with incomes of over $2,500. The percentages for the North Atlantic, North Central, and Western divisions do not show such great variations between farms of large and small amounts of income, as those for the Southern states, showing that race contrasts there are not so marked as in the old slave states.

For all geographic divisions, the figures show that the negro is becoming a farm owner along conservative lines. The per cent of farms of part owners, however, is markedly higher than for owners, as shown in table CIV. The negroes buy small farm homes, for which they can pay, and then rent additional land. This method gives them greater assurance of keeping what they first acquire than any other that could be adopted, and argues well for the future acquisition of farm lands by that race.

FARMS OPERATED BY NEGROES CLASSIFIED BY OTHER CHARACTERISTICS.

Table cv shows by percentages the distribution of farms operated by negroes among the several groups of the four different classifications.

TABLE CV.—PER CENT OF THE NUMBER OF FARMS OPERATED BY NEGRO FARMERS, JUNE 1, 1900, IN SPECIFIED GROUPS OF FARMS CLASSIFIED BY AREA, PRINCIPAL SOURCE OF INCOME, VALUE OF PRODUCTS OF 1899 NOT FED TO LIVE STOCK, AND TENURE, BY GEOGRAPHIC DIVISIONS.

A.—FARMS CLASSIFIED BY AREA IN ACRES.

GROUPS OF FARMS.	The United States.	GEOGRAPHIC DIVISIONS.					
		North Atlantic.	South Atlantic.	North Central.	South Central.	Western.	Alaska and Hawaii.
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Under 3	0.6	2.8	1.0	1.4	0.3	3.9	.....
3 and under 10	6.8	20.3	9.5	9.7	4.9	7.7	100.0
10 and under 20	16.0	17.2	14.0	18.2	17.4	7.1	.....
20 and under 50	45.9	24.6	42.0	36.1	48.9	11.3	.....
50 and under 100	18.0	19.8	18.8	21.6	17.3	9.5	.....
100 and under 175	8.9	11.1	9.9	12.3	8.1	40.1	.....
175 and under 260	2.2	3.1	2.9	3.1	1.8	6.2	.....
260 and under 500	1.2	0.9	1.4	2.1	1.0	7.4	.....
500 and under 1,000	0.3	0.2	0.4	0.4	0.2	4.7	.....
1,000 and over	0.1	.....	0.1	0.1	0.1	2.1	.....

B.—FARMS CLASSIFIED BY PRINCIPAL SOURCE OF INCOME.

Hay and grain	6.9	13.8	8.9	35.8	4.7	24.9	.....
Vegetables	2.1	16.3	3.3	5.1	1.1	9.2	.....
Fruits	0.3	3.4	0.5	2.1	0.1	4.7	.....
Live stock	4.1	24.8	4.5	31.4	3.1	30.9	.....
Dairy produce	0.7	11.4	0.3	2.9	0.8	12.2	.....
Tobacco	2.6	0.7	5.1	1.0	1.1	.....	.....
Cotton	70.5	.....	57.7	1.0	81.0	.....	.....
Rice	0.3	.....	0.6	.....	0.1	.....	.....
Sugar	0.1	.....	.....	0.1	0.2	.....	50.0
Flowers and plants	(1)	0.6	.....	.....	.....	0.6	.....
Nursery products	(1)	0.2	.....	.....	.....	0.3	.....
Taro	(1)	.....	.....	.....	.....	.....	50.0
Coffee	.....	.....	.....	.....	.....	.....	.....
Miscellaneous	12.4	28.8	19.1	20.6	7.8	17.2	.....

C.—FARMS CLASSIFIED BY VALUE OF PRODUCTS OF 1899 NOT FED TO LIVE STOCK.

$0	1.4	0.7	0.9	1.1	1.8	5.0	.....
$1 and under $50	6.8	5.4	9.4	6.5	5.1	8.3	.....
$50 and under $100	9.8	12.1	13.3	12.6	7.4	9.2	.....
$100 and under $250	33.1	34.0	35.5	34.0	31.6	27.0	50.0
$250 and under $500	34.1	24.5	30.4	26.1	36.7	22.0	.....
$500 and under $1,000	12.8	15.3	9.2	13.8	15.1	15.1	50.0
$1,000 and under $2,500	1.9	7.2	1.2	5.3	2.2	10.4	.....
$2,500 and over	0.1	0.8	0.1	0.6	0.1	3.0	.....

D.—FARMS CLASSIFIED BY TENURE.

Owners	21.0	58.6	24.2	41.4	18.1	69.4	100.0
Part owners	4.0	6.4	5.0	14.4	3.1	6.5	.....
Owners and tenants	0.2	0.3	0.2	1.1	0.2	0.3	.....
Managers	0.2	3.8	0.3	0.9	0.1	2.1	.....
Cash tenants	36.6	17.3	34.9	13.9	38.5	7.7	.....
Share tenants	38.0	13.6	35.4	28.3	40.0	14.0	.....

[1] Less than one-tenth of 1 per cent.

Table cv shows, for each geographic division, a series of percentages for the farms of all negro farmers in the United States, such as were presented for white farmers in table c. In every geographic division the negro farmers had the greatest relative number of farms in the groups containing 3 and under 50 acres, and the least in those with largest areas.

Of the negro farmers in the United States, 70.5 per cent derived their principal income from cotton; 12.4 per cent, from miscellaneous products; 6.9 per cent, from hay and grain; 4.1 per cent, from live stock; and 2.6 per cent, from tobacco. The corresponding percentages vary widely in the several geographic divisions owing to differences in the character of their agriculture. In the North Atlantic division the negroes devoted the most attention to live stock, including poultry as well as domestic animals, the growing of vegetables, hay and grain, and dairying. In the South they were almost wholly occupied with cotton and corn growing. The miscellaneous farms reported were largely cotton and corn farms, the crops of which were reported on the farms of the plantation owners, as has already been explained. In the North Central and Western divisions the crops were of the same general character as in the North Atlantic division, the larger proportion of the farms of negroes being hay and grain, and live-stock farms. In the South Central division conditions were similar to those in the South Atlantic, but with a larger per cent of cotton farms and a lower per cent of corn farms, the latter being shown as hay and grain farms.

The figures of section C of table cv show that, in nearly all the divisions, negroes had smaller percentages, than white farmers, of farms with very large incomes, (see table c) and correspondingly larger percentages of farms with small incomes. Their farming operations were not conducted on so large a scale as those of the whites; but the difference was not so marked as in Hawaii between the members of the same race or between the whites and Hawaiians. And as the negro started with nothing forty years ago, the small relative differences shown by the percentages of tables c and cv give evidence of substantial progress in the past and are a hopeful augury of the future.

A comparison of the figures of table c with those of tables civ and cv shows that the negroes operated a greater per cent of tenant farms than they did of all farms, and a greater per cent of tenant farms than were operated by white farmers. In view of the comparatively short period that has elapsed since negro emancipation, this is a natural condition. To find any other condition would prove the negro race industrially superior to the white race. In the country as a whole the negroes operated 13.0 per cent of all farms and 27.5 per cent of all rented farms. The corresponding percentages for the geographic divisions were as follows: North Atlantic, all farms, 0.3, tenant farms, 0.4; South Atlantic, all farms, 29.9, tenant farms, 47.6; North Central, all farms, 0.6, tenant farms, 0.8; South Central, all farms, 26.8, tenant farms, 43.3; and Western, all farms, 0.2, tenant farms, 0.2.

The relative progress of the two races in the South Atlantic states since emancipation is best shown by another comparison. In 1860 in the South Atlantic states there were 301,940 farms, practically all operated

by white farm owners or managers. In 1900 there were 673,354 farms operated by white farmers, of which 450,541 were conducted either by farmers who owned the whole or a part of their land, or by hired white managers, and 222,813 by cash or share tenants. In forty years the number of farms operated by white farmers increased 371,414, and of that number 148,601, or 40.0 per cent, were those of owners or managers and 222,813, or 60.0 per cent, those of tenants. In the period which witnessed this addition of white farmers in the South Atlantic states, 287,933 negroes had acquired control of farm land, of whom 202,578, or 70.4 per cent, were tenants, and 85,355, or 29.6 per cent, were owners or managers.

In considering these comparative figures account should be taken of the following facts: The negroes at the close of the Civil War were just starting out upon their career as wage-earners. They had no land and no experience as farm owners or tenants and none of them became farm owners by inheritance nor inherited money with which to purchase land. Of the 371,414 white farmers added since 1860 very many were the children of landowners and came into the possession of farm land, or the wherewithal to purchase the same, by inheritance. When this difference in the industrial condition of the two races in 1860 is taken into account, the fact that the relative number of owners among the negro farmers in the South Atlantic states in 1900 was practically three-fourths as great as the relative number of owners among the white farmers of those states added in the same period, marks a most noteworthy achievement.

Considering the depreciation of farm values, loss of credit, bad government, and the general depression that prevailed in the South for a considerable time after the Civil War, industrial conditions in that section were perhaps as favorable for the former negro bondsman as for the poor white. The average holdings of the negro are smaller in area and the average value of his owned land is less per acre than the same averages for white farmers, but this is not surprising under the circumstances. The gain in land ownership in the two Southern divisions tends to show, at least, that the land-lease system in the South, while subject to criticism and open to improvement, is far from operating to reënslave the former bondsman and his children.

The statistics of the South Central states enforce practically the same lesson. In that division in 1860 there were 370,373 farms, practically all operated by white farmers, owners, or managers. In 1900 the number operated by white farmers was 1,206,367, of which 750,437 were operated by owners or hired managers. In forty years there had been a gain for the white race of 835,994 farms. If there were no tenants in 1860, the increase in the number of farms operated by white owners in forty years was from 370,373 to 750,437, a gain of 380,064. The tenant farms operated by white farmers in 1900 numbered 455,930. If the assumption be made that there were no tenant farms in 1860, then it appears that of the 835,994 new farms taken up by white farmers from the public land or acquired by the subdivision of older plantations, 45.5 per cent in 1900 were those of owners or managers and 54.5 per cent those of tenants, practically the same relation as in the South Atlantic division.

The corresponding figures for the negro farmers in the South Central division, assuming that there were none in 1860, show an increase of 95,624 farms operated by owners or managers and 348,805 operated by tenants. The owned and managed farms constitute 21.5 per cent and the tenant farms 78.5 per cent of the total. The per cent of gain in ownership is about one-half that made by white farmers, and is thus somewhat less than for the South Atlantic states. The negro farmers are very unevenly distributed throughout the South Central states. In some parts of Texas there are but very few, while in parts of Mississippi they constitute almost the entire population. In the latter section the per cent of farm owners among the negroes is very low. Outside of that area the relative progress of the race in becoming farm owners is substantially the same as in the South Atlantic division. Special consideration of the statistics of certain Southern states will be given in the discussion of tables CVIII and CIX.

Table 14 presents the statistics of the number of farms of colored farmers classified by tenure, and the acreage, value of products, and expenditures, with certain averages and percentages. For the South Central and South Atlantic divisions the figures represent fairly well the statistics of the farms of negroes. For the other divisions they differ considerably, owing to the presence of Indian and Chinese farmers. Table CVI gives by states and territories, but not by tenure, the general statistics for farms operated by negroes which are presented in Table 14 for the farms of colored farmers.

TABLE CVI.—NUMBER AND ACREAGE OF FARMS OF NEGRO FARMERS, AND VALUE OF SPECIFIED FORMS STATES AND

	STATES AND TERRITORIES.	NUMBER OF FARMS.		ACREAGE, JUNE 1, 1900.			VALUE OF FARM PROPERTY, JUNE 1, 1900.				
		Total.	With buildings.	Total.	Improved.	Per cent improved.	Total.	Land and improvements (except buildings).	Buildings.	Implements and machinery.	Live stock.
1	The United States	746,717	716,514	38,233,933	23,362,798	61.1	$499,943,734	$324,244,397	$71,903,315	$18,859,757	$84,936,265
2	North Atlantic division	1,761	1,724	84,407	55,079	65.3	4,776,245	2,664,718	1,465,500	206,777	439,250
3	Maine	24	24	1,043	387	37.1	24,012	11,460	8,490	1,318	2,744
4	New Hampshire	10	10	562	181	32.2	12,620	4,740	5,350	850	1,680
5	Vermont	8	8	1,246	671	53.9	60,350	43,000	10,200	1,430	5,720
6	Massachusetts	87	87	3,967	1,787	45.0	195,880	101,784	73,250	7,055	13,791
7	Rhode Island	28	28	2,084	834	40.0	65,450	37,150	19,950	3,350	5,000
8	Connecticut	107	104	4,136	1,848	44.7	224,539	122,250	78,090	7,425	16,774
9	New York	448	436	26,735	17,013	63.6	1,114,787	553,314	363,000	65,594	132,879
10	New Jersey	469	452	19,205	14,181	73.8	1,047,178	526,730	370,190	53,440	96,818
11	Pennsylvania	585	575	25,429	18,177	71.5	2,031,429	1,264,290	536,980	66,315	163,844
12	South Atlantic division	287,933	278,308	15,573,561	8,874,506	57.0	162,841,284	106,251,076	26,658,379	5,879,229	24,052,600
13	Delaware	817	803	52,558	34,608	65.8	1,393,830	870,720	302,730	73,230	147,150
14	Maryland	5,842	5,731	374,276	238,644	63.8	8,208,572	4,848,120	2,037,240	331,400	991,812
15	District of Columbia	17	17	308	232	75.3	304,592	276,300	16,200	9,790	2,302
16	Virginia	44,795	43,735	2,227,198	1,124,544	50.5	24,490,106	14,457,950	5,491,185	929,885	3,611,086
17	West Virginia	742	718	41,584	23,066	55.5	827,711	553,670	134,190	21,750	118,101
18	North Carolina	53,996	52,262	2,894,210	1,437,313	49.7	28,458 176	18,850,775	4,979,727	941,010	3,686,664
19	South Carolina	85,381	82,078	3,791,510	2,273,501	60.0	43,992,879	30,186,395	5,741,625	1,592,615	6,472,244
20	Georgia	82,822	79,882	5,474,889	3,322,596	60.7	48,698,931	32,512,900	6,818,890	1,683,910	7,683,231
21	Florida	13,521	13,082	717,028	420,002	58.6	6,466,487	3,694,246	1,136,592	295,639	1,340,010
22	North Central division	12,255	11,665	787,071	566,073	71.9	24,608,045	17,926,162	2,933,377	723,125	3,025,381
23	Ohio	1,966	1,865	105,494	85,792	81.3	4,297,922	3,147,105	571,525	119,325	459,967
24	Indiana	1,043	982	52,251	42,448	81.2	2,336,581	1,741,460	284,960	60,135	250,026
25	Illinois	1,486	1,389	83,107	64,154	77.2	3,326,319	2,584,730	339,510	86,320	315,759
26	Michigan	626	605	38,259	26,694	69.8	1,441,866	963,995	253,110	55,945	168,816
27	Wisconsin	58	56	5,495	2,462	44.8	132,458	90,285	19,365	4,483	18,325
28	Minnesota	31	29	4,493	1,876	41.8	99,755	71,704	16,440	2,780	8,831
29	Iowa	200	188	15,359	12,235	79.7	783,343	546,410	100,470	23,225	113,238
30	Missouri	4,950	4,770	271,333	195,522	72.1	7,969,326	5,855,470	863,720	220,432	1,029,704
31	North Dakota	18	18	13,572	4,019	29.6	94,994	61,925	7,890	11,165	14,014
32	South Dakota	17	17	9,027	3,488	38.6	89,496	63,385	8,395	2,735	15,031
33	Nebraska	78	71	15,067	8,335	55.3	278,081	174,645	25,240	9,622	68,574
34	Kansas	1,782	1,675	173,614	119,048	68.6	3,757,904	2,625,038	442,752	126,958	563,096
35	South Central division	444,429	424,491	21,712,876	13,846,278	63.8	306,665,271	196,682,266	40,784,135	12,014,612	57,234,258
36	Kentucky	11,227	10,785	446,955	340,832	76.3	10,950,268	7,228,835	1,723,555	355,713	1,642,165
37	Tennessee	33,883	32,354	1,549,683	1,036,640	66.9	26,735,588	16,950,860	3,633,900	1,270,127	4,880,701
38	Alabama	94,069	88,612	4,719,069	3,063,679	64.9	46,908,811	29,072,925	6,133,565	1,927,840	9,774,481
39	Mississippi	128,351	123,903	5,886,075	3,741,957	63.6	86,390,974	55,001,914	11,622,552	3,294,163	16,472,345
40	Louisiana	58,096	55,384	2,343,365	1,573,507	67.1	37,995,093	24,187,645	5,584,345	1,439,730	6,783,373
41	Texas	65,472	61,942	3,835,979	2,428,643	63.3	56,180,207	37,414,009	7,152,345	2,169,577	9,444,276
42	Oklahoma	2,256	2,163	266,957	108,942	40.8	2,921,326	1,912,539	211,831	106,449	690,507
43	Indian Territory	4,097	4,052	361,457	177,027	49.0	4,391,830	2,253,014	455,327	209,403	1,474,086
44	Arkansas	46,978	45,296	2,303,336	1,375,051	59.7	34,191,174	22,660,525	4,216,715	1,241,610	6,072,324
45	Western division	337	324	76,005	20,850	27.4	1,050,389	718,775	110,874	36,014	184,726
46	Montana	21	21	4,410	780	17.7	46,672	29,875	5,525	2,725	8,547
47	Wyoming	2	2	800	50	6.3	3,108	1,600	600	400	508
48	Colorado	58	57	11,027	2,520	22.9	150,359	102,805	19,155	5,340	23,059
49	New Mexico	14	13	18,578	235	1.3	32,275	23,625	3,450	1,357	3,843
50	Arizona	15	14	1,850	473	25.6	65,969	26,960	6,350	2,340	30,319
51	Utah	11	11	648	302	46.6	20,675	15,300	2,854	810	1,711
52	Nevada	3	3	1,605	790	49.2	40,719	24,550	2,450	315	13,404
53	Idaho	9	9	1,105	481	43.5	23,166	16,570	1,845	1,411	3,340
54	Washington	55	51	8,008	1,268	15.8	131,227	93,280	16,870	3,984	17,093
55	Oregon	14	14	2,510	502	20.0	38,417	23,290	4,885	1,210	9,032
56	California	135	129	25,464	13,449	52.8	497,802	360,990	46,890	16,122	73,870
57	Alaska	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
58	Hawaii	2	2	13	12	92.3	2,500	1,400	1,050	.....	50

OF FARM PROPERTY, VALUE OF PRODUCTS, AND EXPENDITURES FOR LABOR AND FERTILIZERS, BY TERRITORIES.

VALUE OF PRODUCTS, 1899.				EXPENDITURES, 1899.		AVERAGE VALUE PER FARM.								AVERAGE EXPENDITURES PER FARM, 1899.		
						Farm property, June 1, 1900.					Products, 1899.					
Total.	Fed to live stock.	Not fed to live stock.	Per cent not fed, to value of property.	Labor.	Fertilizers.	Total.	Land and improvements (except buildings).	Buildings.	Implements and machinery.	Live stock.	Total.	Not fed to live stock.	Average value per acre of products not fed.	Labor.	Fertilizers.	
$255,751,145	$25,843,443	$229,907,702	46.0	$8,789,792	$5,614,844	$669	$434	$96	$25	$114	$342	$308	$6.01	$12	$8	1
901,799	218,370	683,429	14.3	86,094	28,125	2,712	1,518	832	117	250	512	388	8.10	49	16	2
6,259	1,255	5,004	20.8	380	123	1,001	478	354	55	114	261	209	4.80	16	5	3
3,770	1,050	2,720	21.6	230	90	1,262	474	535	85	168	377	272	4.84	23	9	4
14,530	4,360	10,170	16.9	680	90	7,544	5,375	1,275	179	715	1,816	1,271	8.16	85	11	5
47,272	8,244	39,028	19.9	4,945	982	2,251	1,170	842	81	158	543	448	9.84	57	11	6
11,090	1,220	9,870	15.1	1,850	1,070	2,338	1,327	712	120	179	396	352	4.74	66	38	7
46,106	7,723	38,383	17.1	5,735	2,047	2,098	1,142	730	69	157	431	359	9.28	54	19	8
242,141	70,635	171,506	15.4	20,189	3,328	2,516	1,249	819	148	300	547	387	6.42	46	8	9
249,290	53,960	195,330	18.6	25,785	12,635	2,233	1,123	789	114	207	532	417	10.17	55	27	10
281,341	69,923	211,418	10.4	26,300	7,760	3,478	2,161	918	114	280	481	361	8.31	45	13	11
87,413,897	8,318,801	79,095,096	48.6	3,663,841	4,688,977	566	369	93	20	84	304	275	5.08	13	16	12
344,531	71,290	273,241	19.6	26,438	19,330	1,706	1,066	370	90	180	422	335	5.20	32	24	13
1,997,051	360,120	1,636,931	19.9	153,060	116,630	1,405	829	349	57	170	342	280	4.37	26	20	14
17,646	340	17,306	5.7	2,200	520	17,917	16,253	953	576	135	1,038	1,018	56.19	129	31	15
9,871,876	1,307,252	8,564,624	35.0	428,947	412,852	547	323	122	21	81	220	191	3.85	10	9	16
200,010	33,330	166,680	20.1	7,720	2,260	1,116	746	181	30	159	270	225	4.01	10	3	17
14,772,766	1,357,056	13,415,710	47.1	492,976	827,110	527	349	92	18	68	274	249	4.64	9	15	18
26,586,962	1,929,552	24,657,410	56.0	1,210,340	1,504,275	515	353	67	19	76	311	289	6.50	14	18	19
29,939,421	2,767,397	27,172,024	55.8	1,208,860	1,684,010	588	393	82	20	93	361	328	4.96	15	20	20
3,683,634	492,464	3,191,170	49.3	133,300	71,990	478	273	84	22	99	272	236	4.45	10	5	21
5,442,806	1,203,998	4,238,808	17.2	242,135	15,717	2,008	1,463	239	59	247	444	346	5.39	20	1	22
982,196	191,289	790,907	18.4	45,790	8,630	2,186	1,601	201	60	234	500	402	7.50	23	4	23
495,445	104,509	390,936	16.7	21,445	3,860	2,240	1,670	273	57	240	475	375	7.48	21	4	24
641,700	145,246	496,454	14.9	34,410	420	2,238	1,739	228	58	213	432	334	5.97	23	.....	25
300,590	72,441	228,149	15.8	17,218	195	2,303	1,540	404	89	270	480	364	5.96	28	.....	26
29,046	8,612	20,434	15.4	637	.....	2,284	1,557	334	77	316	501	352	3.72	11	.....	27
18,601	3,210	15,391	15.4	2,335	.....	3,218	2,313	530	90	285	600	496	3.43	75	.....	28
158,454	36,296	122,158	15.6	7,350	90	3,917	2,732	503	116	566	792	611	7.95	37	.....	29
1,835,732	439,824	1,395,908	17.5	64,610	1,840	1,610	1,183	174	45	208	371	282	5.14	13	.....	30
20,605	3 126	17,479	18.4	2,990	.....	5,277	3,440	438	620	779	1,145	971	1.29	166	.....	31
17,137	4 054	13,083	14.6	1,080	.....	5,264	3,725	494	161	884	1,008	770	1.45	64	.....	32
56,017	13,415	42,602	15.3	1,035	.....	3,565	2,239	324	123	879	718	546	2.83	13	.....	33
887,283	181,976	705,307	18.8	43,235	682	2,109	1,473	249	71	316	498	396	4.06	24	.....	34
161,784,899	16,066,771	145,718,128	47.5	4,768,110	930,838	690	443	91	27	129	364	328	6.71	11	2	35
3,508,817	479,368	3,029,449	27.7	114,050	15,850	975	644	158	32	146	313	270	6.78	10	1	36
11,089,045	1,420,971	9,668,074	36.2	243,640	39,830	789	500	107	38	144	327	285	6.24	7	1	37
29,704,034	2,789,022	26,915,012	57.4	1,195,230	543,747	499	309	65	21	104	316	286	5.70	13	6	38
51,932,161	4,466,175	47,465,986	54.9	1,836,297	213,782	673	428	91	26	128	405	370	8.06	10	2	39
20,369,114	1,813,294	19,175,820	50.5	661,365	78,405	654	416	96	25	117	361	330	8.18	11	1	40
24,367,070	2,824,165	21,542,905	38.3	607,069	13,184	858	572	109	33	144	372	329	5.62	9	.....	41
739,655	128,143	611,512	20.9	17,588	.....	1,295	847	95	47	306	328	271	2.29	8	.....	42
1,486,652	220,598	1,266,054	28.8	43,596	.....	1,072	550	111	51	360	363	309	3.50	11	.....	43
17,968,351	1,925,035	16,043,316	46.9	549,280	26,040	728	482	90	27	129	382	341	6.97	12	1	44
207,034	35,503	171,531	16.8	29,612	1,187	3,117	2,133	329	107	548	614	509	2.26	88	4	45
12,262	1,929	10,333	22.1	1,870	75	2,222	1,422	263	130	407	584	492	2.34	89	4	46
781	104	677	21.8	25	.....	1,554	800	300	200	254	391	338	0.85	12	.....	47
32,852	6,079	26,773	17.8	1,600	300	2,592	1,772	330	92	398	566	461	2.43	28	5	48
4,109	513	3,596	11.1	566	.....	2,305	1,688	246	97	274	294	257	0.19	40	.....	49
13,619	1,805	11,814	17.9	3,965	.....	4,398	1,797	423	156	2,022	908	788	6.39	264	.....	50
2,552	417	2,135	10.3	103	.....	1,880	1,391	259	74	156	232	194	3.29	9	.....	51
4,988	3,705	1,283	3.0	2,300	.....	13,573	8,183	817	105	4,468	1,646	411	0.77	767	.....	52
8,244	652	7,592	32.8	1,500	120	2,574	1,841	205	157	371	916	844	6.87	167	13	53
23,321	5,561	17,760	13.5	1,755	2	2,386	1,696	307	72	311	424	323	2.22	32	.....	54
9,749	1,709	8,040	20.9	515	.....	2,744	1,664	349	86	645	696	574	3.20	37	.....	55
94,607	13,029	81,578	16.4	15,413	690	3,687	2,678	347	120	547	701	604	3.20	114	5	56
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	57
710	.....	710	28.4	.....	.....	1,250	700	525	.....	25	355	355	54.62	.....	.....	58

The negroes operated 746,717 farms, of which 716,514, or 96.0 per cent, had buildings upon them. These farms had a total area of 38,233,933 acres, of which 23,362,798, or 61.1 per cent, were improved, and 14,871,135, or 38.9 per cent, were unimproved. The value of all farm property in these farms was $449,943,734, of which $324,244,397 represented the value of land and improvements exclusive of buildings, $71,903,315 that of buildings, $18,859,757 that of implements and machinery, and $84,936,265 that of live stock. The negroes controlled 13.0 per cent of all farms, and show the following percentages of total farm area and value: Acres in farms, 4.5; improved acres, 5.6; value of all farm property, 2.4; of land, 2.5; of buildings, 2.0; of implements and machinery, 2.5; and of live stock, 2.8.

The information given above for negro farmers is given for all colored farmers in Table 14. The acres of land in the three classes of farms operated by colored owners were 16,058,860, and the total value of the farm property on such farms was $181,116,048. This sum includes the value of farms, live stock, and implements, on farms owned and operated by Indians, Chinese, Japanese, and Hawaiians, as well as by negroes. After making an allowance for such values, if an estimate of the probable total farm wealth of the negro farmers, June 1, 1900, be desired, the value of the live stock on rented farms, of which a large share generally belongs to the tenants, should be added. That value for the colored tenants was $57,167,206. Adding this sum to the preceding total it appears that the value June 1, 1900, of the farm property belonging to negroes, was approximately $200,000,000, or a little less than $300 for each negro farmer. The corresponding amount of farm wealth for the white farmers of the United States, June 1, 1900, was $15,664,698,045.

A better comparison of the figures relating to the farms of white and negro farmers is given in table CVII, which shows in parallel columns the average acreage per farm, the per cent of improved land, and the average value of the farm property of both classes, by states and territories.

TABLE CVII.—AVERAGE NUMBER OF ACRES OF LAND, PER CENT OF LAND IMPROVED, AND AVERAGE VALUE PER FARM OF ALL FARM PROPERTY, FOR FARMS OF WHITE AND NEGRO FARMERS, JUNE 1, 1900, BY STATES AND TERRITORIES.

STATES AND TERRITORIES.	WHITE FARMERS.			NEGRO FARMERS.		
	Acres per farm.	Per cent of improved land.	Value per farm.	Acres per farm.	Per cent of improved land.	Value per farm.
The United States	160.7	48.9	$4,016	51.2	61.1	$669
North Atlantic division	96.7	59.5	4,361	47.9	65.3	2,712
Maine	106.3	37.9	2,065	43.5	37.1	1,001
New Hampshire	123.1	29.8	2,928	56.2	32.2	1,262
Vermont	142.7	45.0	3,275	155.8	53.9	7,544
Massachusetts	83.5	41.1	4,851	45.6	45.0	2,251
Rhode Island	82.9	41.1	4,922	74.4	40.0	2,338
Connecticut	86.0	46.0	4,213	38.7	44.7	2,098
New York	100.0	68.9	4,727	60.3	63.6	2,516
New Jersey	82.6	69.6	5,514	40.9	78.8	2,283
Pennsylvania	86.5	68.2	4,693	43.5	71.5	3,473
South Atlantic division	131.7	42.0	$1,917	54.1	57.0	$566
Delaware	114.3	71.0	4,431	64.3	65.8	1,706
Maryland	119.4	68.3	4,890	64.1	63.8	1,405
District of Columbia	32.6	69.7	44,567	18.1	75.3	17,917
Virginia	143.7	50.7	2,430	49.7	50.5	547
West Virginia	115.2	51.6	2,204	56.0	55.5	1,116
North Carolina	116.6	34.7	1,207	53.6	49.7	527
South Carolina	145.7	34.4	1,567	44.4	60.0	515
Georgia	147.4	34.9	1,266	66.1	60.7	588
Florida	133.6	29.9	1,739	53.0	58.6	478
North Central division	144.6	70.3	5,263	64.2	71.9	2,008
Ohio	88.8	78.5	4,348	53.7	81.3	2,186
Indiana	97.7	77.1	4,421	50.1	81.2	2,240
Illinois	124.5	84.5	7,618	55.9	77.2	2,238
Michigan	86.6	67.2	3,404	61.1	69.8	2,303
Wisconsin	117.0	56.7	4,789	94.7	44.8	2,284
Minnesota	169.7	70.4	5,106	144.9	41.8	3,218
Iowa	151.3	86.5	8,028	76.8	79.7	3,917
Missouri	120.5	67.4	3,662	54.8	72.1	1,610
North Dakota	349.7	62.4	5,769	754.0	29.6	5,277
South Dakota	353.4	62.4	5,751	531.0	38.6	5,264
Nebraska	246.4	61.7	6,164	193.2	55.3	3,565
Kansas	242.2	60.1	5,022	97.4	68.6	2,109
South Central division	194.6	28.0	2,065	48.9	63.8	690
Kentucky	96.4	62.2	2,059	39.8	76.3	975
Tennessee	98.5	49.0	1,649	45.7	66.9	789
Alabama	123.6	35.0	1,026	50.2	64.9	499
Mississippi	133.9	31.2	1,278	45.9	63.6	673
Louisiana	150.7	35.5	2,776	40.3	67.1	654
Texas	425.5	14.1	3,161	58.6	63.3	858
Oklahoma	256.5	35.2	3,032	118.3	40.8	1,295
Indian Territory	166.7	41.8	2,047	88.2	49.0	1,072
Arkansas	108.8	38.9	1,118	49.0	59.7	728
Western division	395.8	28.9	7,221	225.5	27.4	3,117
Montana	904.9	14.5	8,950	210.0	17.7	2,222
Wyoming	1,368.0	9.8	11,378	400.0	6.3	1,554
Colorado	384.2	24.0	6,533	190.1	22.9	2,592
New Mexico	463.6	6.0	4,860	1,327.0	1.3	2,365
Arizona	471.6	12.0	6,966	123.3	25.6	4,398
Utah	214.0	25.0	3,906	58.9	46.6	1,880
Nevada	1,272.1	22.3	14,188	535.0	49.2	13,573
Idaho	183.8	44.4	3,892	122.8	43.5	2,574
Washington	260.9	41.0	4,417	145.6	15.8	2,386
Oregon	279.6	33.3	4,861	179.3	20.0	2,744
California	404.0	41.5	11,103	188.6	52.8	3,687
Alaska	13.2	100.0	1,307	.....	.....	.....
Hawaii	4,090.9	12.1	134,064	6.5	92.3	1,250

In all geographic divisions except the Western, the per cent of improved land in farms operated by negroes was greater than in those of white farmers. The greatest difference of this kind was in the South Central states, where the farms of negroes had 63.8 per cent of improved land, and those of whites but 28.0 per cent. In that section, the farms operated by negroes are mainly rented cotton farms, with but little unimproved land. The white farmers in many cases reported the land which remained after the greater portion of the improved land of their plantations had been leased to negro tenants. The average area of the farms of negroes was everywhere smaller than for those of white except in Vermont, North Dakota, and New Mexico, where but few negro farmers reside. The average value per farm was also higher for farms operated by the whites except in Vermont, where there were only 8 colored farmers.

The negro race like all others, is greatly affected by environment. In the North Atlantic division, 69.3 per

cent of the farms of white farmers and 65.3 per cent of those of colored farmers were operated by owners. The corresponding percentages for the South Atlantic division were 65.7 and 29.4, respectively. By comparing these percentages, it is seen that localities showing the largest per cent of owned farms for white farmers show the same relationship for colored farmers. The influence of environment is further illustrated by a comparison of the data of ownership of farms by white and negro farmers in the North and South Central divisions. The negro farmer has a greater incentive to become an owner in the North, where he comes more in contact with farmers by whose example and experience he can profit in his struggle for a higher industrial position.

Table CVIII presents a comparative statement of the number of farms operated by white and by negro owners, managers, and tenants in certain counties in Alabama, Arkansas, Georgia, Louisiana, Mississippi, South Carolina, and Texas. The farms classified in the general tables as those of owners, part owners, and owners and tenants, are here grouped under the general designation of owners. The table shows comparisons between the states as a whole, and between the 15 counties in each state in which there were the largest and the smallest proportion of negro farmers June 1, 1900.

TABLE CVIII.—NUMBER OF FARMS OF SPECIFIED TENURES, OPERATED BY WHITE AND NEGRO FARMERS, JUNE 1, 1900, IN ALABAMA, ARKANSAS, GEORGIA, LOUISIANA, MISSISSIPPI, SOUTH CAROLINA, AND TEXAS, AND IN SELECTED COUNTIES IN THESE STATES.

A.—IN ALL COUNTIES IN EACH STATE.

STATES.	FARMS OPERATED BY WHITE—			FARMS OPERATED BY NEGRO—		
	Owners.	Managers.	Tenants.	Owners.	Managers.	Tenants.
Seven states	533,628	8,056	365,570	106,886	817	453,466
Alabama	79,362	802	48,973	14,110	72	79,887
Arkansas	84,794	739	46,178	11,941	80	34,957
Georgia	77,154	1,394	63,317	11,375	208	71,239
Louisiana	38,323	955	18,531	9,378	79	48,639
Mississippi	61,048	823	30,253	20,973	107	107,271
South Carolina	40,447	874	28,633	18,970	180	66,231
Texas	154,500	2,469	129,685	20,139	91	45,242

B.—IN 15 COUNTIES IN EACH STATE WITH LARGEST PERCENTAGES OF NEGRO FARMERS.

Seven states	51,185	1,811	32,601	37,386	354	207,696
Alabama	9,121	267	5,942	4,770	36	51,873
Arkansas	7,287	201	4,558	5,359	48	23,257
Georgia	3,851	190	2,749	2,698	66	13,158
Louisiana	4,940	261	3,058	2,571	28	27,066
Mississippi	8,663	339	2,816	3,895	46	44,959
South Carolina	11,840	386	6,643	12,341	112	33,181
Texas	10,483	167	6,835	5,752	18	14,202

C.—IN 15 COUNTIES IN EACH STATE WITH SMALLEST PERCENTAGES OF NEGRO FARMERS.

Seven states	120,491	1,149	67,915	7,265	58	23,548
Alabama	25,458	143	13,932	861	2	1,339
Arkansas	25,206	206	10,326	105	2	67
Georgia	10,943	51	7,515	163	1	438
Louisiana	12,433	198	4,622	1,304	10	1,147
Mississippi	14,658	52	6,297	1,541	7	2,464
South Carolina	20,190	271	16,352	3,283	35	18,075
Texas	11,603	228	8,871	8	1	18

Table CIX presents a summary by percentages of the same facts for the same states and counties.

TABLE CIX.—PER CENT OF FARMS OF SPECIFIED TENURES, OPERATED BY WHITE AND NEGRO FARMERS, JUNE 1, 1900, IN ALABAMA, ARKANSAS, GEORGIA, LOUISIANA, MISSISSIPPI, SOUTH CAROLINA, AND TEXAS, AND IN SELECTED COUNTIES IN THESE STATES.

A.—IN ALL COUNTIES IN EACH STATE.

STATES.	FARMS OPERATED BY WHITE—			FARMS OPERATED BY NEGRO—		
	Owners.	Managers.	Tenants.	Owners.	Managers.	Tenants.
Seven states	58.9	0.9	40.2	19.1	0.1	80.8
Alabama	61.5	0.6	37.9	15.0	0.1	84.9
Arkansas	64.4	0.6	35.0	25.4	0.2	74.4
Georgia	54.4	1.0	44.6	13.7	0.3	86.0
Louisiana	66.2	1.7	32.1	16.2	0.1	83.7
Mississippi	66.2	0.9	32.9	16.3	0.1	83.6
South Carolina	57.9	1.2	40.9	22.2	0.2	77.6
Texas	53.8	0.9	45.3	30.8	0.1	69.1

B.—IN 15 COUNTIES IN EACH STATE WITH LARGEST PER CENT OF NEGRO FARMERS.

Seven states	59.8	2.1	38.1	15.2	0.2	84.6
Alabama	59.5	1.7	38.8	8.4	0.1	91.5
Arkansas	60.5	1.7	37.8	18.7	0.2	81.1
Georgia	56.7	2.8	40.5	17.0	0.4	82.6
Louisiana	59.8	3.2	37.0	8.7	0.1	91.2
Mississippi	53.7	5.0	41.3	8.0	0.1	91.9
South Carolina	62.8	2.0	35.2	27.0	0.3	72.7
Texas	59.9	1.0	39.1	28.8	0.1	71.1

C.—IN 15 COUNTIES IN EACH STATE WITH SMALLEST PER CENT OF NEGRO FARMERS.

Seven states	63.6	0.6	35.8	23.5	0.2	76.3
Alabama	64.4	0.4	35.2	39.1	0.1	60.8
Arkansas	70.5	0.6	28.9	60.3	1.2	38.5
Georgia	59.1	0.3	40.6	27.1	0.2	72.7
Louisiana	72.1	1.1	26.8	53.0	0.4	46.6
Mississippi	69.8	0.2	30.0	38.4	0.2	61.4
South Carolina	54.9	0.7	44.4	15.3	0.2	84.5
Texas	56.0	1.1	42.9	29.6	3.7	66.7

In the 15 counties in which negro farmers were relatively most numerous, white owners constituted 59.8 per cent of all white farmers. In the 15 counties with the smallest percentages of negro farmers, the corresponding per cent for white owners was 63.6. In the first set of counties the per cent of owned farms among the negroes was 15.2 and in the latter 23.5, or relatively about 50 per cent greater. The industrial condition of the negro farmer was doubtless correspondingly better in the latter than in the former group of counties. The condition shown for the average of these seven states agrees with that shown by the states, individually, in six out of the seven cases. In South Carolina there is some other regulative force which gives the higher per cent of ownership to the counties where the colored farmers are most numerous, the reason for this variation being less apparent than the fact itself.

The industrial experience of the two races, as expressed in the contrast between the percentages for the Northern states and those for the South, and compari-

sons of county groups such as those given in tables CVIII and CIX, justifies the conclusion that an industrial separation of the two races and the segregation of the negroes in the South or North inures to the benefit of neither race. The negro, at least, makes the better progress the more closely he is associated with the white man and the more he is enabled to see in the example of the white man an incentive for becoming a landowner. Take away this example by segregating the colored man from the white, as in the black belt of the South, repeat Haiti in a lesser degree, and some of the Haitian conditions are reproduced. Under such conditions the progress of the colored man is slower, and the white man, as well as the negro, fails to realize the benefits of an improved industrial order.

NUMBER AND CHARACTER OF FARMS OPERATED BY INDIAN FARMERS.

Table CX presents the number of farms operated by Indians, classified by area, principal source of income, amount of income, and tenure, by geographic divisions. Tables CXI gives the percentages for each group of farms so classified, and table CXII shows the per cent of farms of Indians belonging to each of the several subgroups in the four different classifications.

TABLE CX.—NUMBER OF FARMS, JUNE 1, 1900, OPERATED BY INDIAN FARMERS, IN SPECIFIED GROUPS OF FARMS CLASSIFIED BY AREA, PRINCIPAL SOURCE OF INCOME, VALUE OF PRODUCTS OF 1899 NOT FED TO LIVE STOCK, AND TENURE, BY GEOGRAPHIC DIVISIONS.

A.—FARMS CLASSIFIED BY AREA IN ACRES.

GROUPS OF FARMS.	The United States.	GEOGRAPHIC DIVISIONS.					
		North Atlantic.	South Atlantic.	North Central.	South Central.	Western.	Alaska and Hawaii.[1]
Total	19,910	366	935	4,637	7,354	6,618	.....
Under 3	781	1	5	71	75	629	.....
3 and under 10	2,112	23	89	272	657	1,071	.....
10 and under 20	2,621	53	108	446	998	1,016	.....
20 and under 50	4,062	135	302	799	1,518	1,308	.....
50 and under 100	2,505	80	209	419	944	853	.....
100 and under 175	3,529	57	144	655	1,614	1,059	.....
175 and under 260	897	10	51	236	414	186	.....
260 and under 500	1,572	5	20	725	556	266	.....
500 and under 1,000	1,211	1	7	708	341	154	.....
1,000 and over	620	1	.....	306	237	76	.....

B.—FARMS CLASSIFIED BY PRINCIPAL SOURCE OF INCOME.

Hay and grain	8,146	111	183	2,027	2,673	3,152	.....
Vegetables	767	61	55	147	61	443	.....
Fruits	138	15	6	13	24	80	.....
Live stock	5,688	48	114	1,500	2,209	1,767	.....
Dairy produce	365	25	2	117	46	175	.....
Tobacco	15	.....	11	2	2	.....	.....
Cotton	1,863	.....	230	1	1,632	.....	.....
Rice	.....	.....	.....	.....	.....	.....	.....
Sugar	10	.....	1	.....	9	.....	.....
Flowers and plants	.....	.....	.....	.....	.....	.....	.....
Nursery products	.....	.....	.....	.....	.....	.....	.....
Taro	.....	.....	.....	.....	.....	.....	.....
Coffee	.....	.....	.....	.....	.....	.....	.....
Miscellaneous	2,968	106	333	830	698	1,001	.....

[1] No Indian farmers reported in Alaska or Hawaii.

TABLE CX.—NUMBER OF FARMS, JUNE 1, 1900, OPERATED BY INDIAN FARMERS, IN SPECIFIED GROUPS OF FARMS CLASSIFIED BY AREA, PRINCIPAL SOURCE OF INCOME, VALUE OF PRODUCTS OF 1899 NOT FED TO LIVE STOCK, AND TENURE, BY GEOGRAPHIC DIVISIONS—Continued.

C.—FARMS CLASSIFIED BY VALUE OF PRODUCTS OF 1899 NOT FED TO LIVE STOCK.

GROUPS OF FARMS.	The United States.	GEOGRAPHIC DIVISIONS.					
		North Atlantic.	South Atlantic.	North Central.	South Central.	Western.	Alaska and Hawaii.[1]
$0	1,681	1	7	407	533	733	.....
$1 and under $50	4,208	47	157	1,068	1,023	1,913	.....
$50 and under $100	3,300	54	161	1,046	764	1,275	.....
$100 and under $250	5,395	127	306	1,343	2,015	1,604	.....
$250 and under $500	2,787	85	189	483	1,406	624	.....
$500 and under $1,000	1,542	36	91	216	905	294	.....
$1,000 and under $2,500	777	14	23	64	542	134	.....
$2,500 and over	220	2	1	10	166	41	.....

D.—FARMS CLASSIFIED BY TENURE.

Owners	18,008	312	688	4,465	6,362	6,181	.....
Part owners	534	33	36	63	106	296	.....
Owners and tenants	110	.....	2	7	63	38	.....
Managers	62	1	2	10	30	19	.....
Cash tenants	228	3	72	14	112	27	.....
Share tenants	968	17	135	78	681	57	.....

[1] No Indian farmers reported in Alaska or Hawaii.

TABLE CXI.—PER CENT OF ALL FARMS, JUNE 1, 1900, IN SPECIFIED GROUPS OF FARMS CLASSIFIED BY AREA, PRINCIPAL SOURCE OF INCOME, VALUE OF PRODUCTS OF 1899 NOT FED TO LIVE STOCK, AND TENURE, WHICH WERE OPERATED BY INDIAN FARMERS, BY GEOGRAPHIC DIVISIONS.

A.—FARMS CLASSIFIED BY AREA IN ACRES.

GROUPS OF FARMS.	The United States.	GEOGRAPHIC DIVISIONS.					
		North Atlantic division.	South Atlantic division.	North Central division.	South Central division.	Western division.	Alaska and Hawaii.[1]
All farms	0.4	(2)	0.1	0.2	0.4	2.7	.....
Under 3	1.9	(2)	0.1	0.6	1.1	9.8	.....
3 and under 10	0.9	0.1	0.2	0.5	1.1	8.1	.....
10 and under 20	0.7	0.1	0.1	0.6	0.6	5.7	.....
20 and under 50	0.3	0.1	0.1	0.2	0.3	3.8	.....
50 and under 100	0.2	(2)	0.1	0.1	0.3	3.0	.....
100 and under 175	0.2	(2)	(2)	0.1	0.5	1.5	.....
175 and under 260	0.2	(2)	(2)	0.1	0.4	1.1	.....
260 and under 500	0.4	(2)	(2)	0.4	0.8	0.8	.....
500 and under 1,000	1.2	(2)	0.1	1.7	1.4	1.1	.....
1,000 and over	1.3	(2)	.....	2.7	1.4	0.7	.....

B.—FARMS CLASSIFIED BY PRINCIPAL SOURCE OF INCOME.

Hay and grain	0.6	0.1	0.1	0.3	1.2	4.4	.....
Vegetables	0.5	0.1	0.2	0.3	0.3	3.7	.....
Fruits	0.2	0.1	(2)	0.1	0.3	0.3	.....
Live stock	0.3	(2)	0.1	0.2	0.8	2.5	.....
Dairy produce	0.1	(2)	(2)	0.1	0.1	0.6	.....
Tobacco	(2)	.....	(2)	(2)	(2)	.....	.....
Cotton	0.2	.....	0.1	0.1	0.2	.....	.....
Rice	.....	.....	.....	.....	.....	.....	.....
Sugar	0.1	.....	0.3	.....	0.2	.....	.....
Flowers and plants	.....	.....	.....	.....	.....	.....	.....
Nursery products	.....	.....	.....	.....	.....	.....	.....
Taro	.....	.....	.....	.....	.....	.....	.....
Coffee	.....	.....	.....	.....	.....	.....	.....
Miscellaneous	0.3	0.1	0.1	0.3	0.2	2.7	.....

[1] No Indian farmers reported in Alaska or Hawaii.
[2] Less than one-tenth of 1 per cent.

TABLE CXI.—PER CENT OF ALL FARMS, JUNE 1, 1900, IN SPECIFIED GROUPS OF FARMS CLASSIFIED BY AREA, PRINCIPAL SOURCE OF INCOME, VALUE OF PRODUCTS OF 1899 NOT FED TO LIVE STOCK, AND TENURE, WHICH WERE OPERATED BY INDIAN FARMERS, BY GEOGRAPHIC DIVISIONS—Continued.

C.—FARMS CLASSIFIED BY VALUE OF PRODUCTS OF 1899 NOT FED TO LIVE STOCK.

GROUPS OF FARMS.	The United States.	GEOGRAPHIC DIVISIONS.					
		North Atlantic division.	South Atlantic division.	North Central division.	South Central division.	Western division.	Alaska and Hawaii.[1]
$0	3.2	0.1	0.1	2.9	2.5	8.0	.....
$1 and under $50	2.5	0.4	0.8	3.1	1.7	18.1	.....
$50 and under $100	1.1	0.2	0.2	1.4	0.7	9.3	.....
$100 and under $250	0.4	0.1	0.1	0.4	0.4	4.0	.....
$250 and under $500	0.2	0.1	0.1	0.1	0.2	1.3	.....
$500 and under $1,000	0.1	(2)	(2)	(2)	0.3	0.6	.....
$1,000 and under $2,500	0.1	(2)	(2)	(2)	0.6	0.3	.....
$2,500 and over	0.2	.....	(2)	(2)	1.0	0.2	.....

D.—FARMS CLASSIFIED BY SPECIAL TENURE.

Owners	0.6	0.1	0.1	0.4	0.9	3.7	.....
Part owners	0.1	0.1	0.1	(2)	0.1	1.2	.....
Owners and tenants	0.2	.....	(2)	(2)	0.4	2.6	.....
Managers	0.1	(2)	(2)	(2)	0.3	0.3	.....
Cash tenants	(2)	(2)	(2)	(2)	(2)	0.2	.....
Share tenants	0.1	(2)	(2)	(2)	0.2	0.3	.....

[1] No Indian farmers reported in Alaska or Hawaii.
[2] Less than one-tenth of 1 per cent.

TABLE CXII.—PER CENT OF ALL FARMS OPERATED BY INDIAN FARMERS, JUNE 1, 1900, IN SPECIFIED GROUPS OF FARMS CLASSIFIED BY AREA, PRINCIPAL SOURCE OF INCOME, VALUE OF PRODUCTS OF 1899 NOT FED TO LIVE STOCK, AND BY TENURE, BY GEOGRAPHIC DIVISIONS.

A.—FARMS CLASSIFIED BY AREA IN ACRES.

GROUPS OF FARMS.	The United States.	GEOGRAPHIC DIVISIONS.					
		North Atlantic.	South Atlantic.	North Central.	South Central.	Western.	Alaska and Hawaii.[1]
Total	100.0	100.0	100.0	100.0	100.0	100.0	.....
Under 3	3.9	0.3	0.5	1.5	1.0	9.5	.....
3 and under 10	10.6	6.3	9.5	5.9	8.9	16.2	.....
10 and under 20	13.2	14.5	11.6	9.6	13.6	15.4	.....
20 and under 50	20.4	36.9	32.3	17.2	20.7	19.8	.....
50 and under 100	12.6	21.8	22.4	9.1	12.8	12.9	.....
100 and under 175	17.7	15.6	15.4	14.1	22.0	16.0	.....
175 and under 260	4.5	2.7	5.5	5.1	5.6	2.8	.....
260 and under 500	7.9	1.3	2.1	15.6	7.6	4.0	.....
500 and under 1,000	6.1	0.3	0.7	15.3	4.6	2.3	.....
1,000 and over	3.1	0.3	.....	6.6	3.2	1.1	.....

B.—FARMS CLASSIFIED BY PRINCIPAL SOURCE OF INCOME.

Hay and grain	40.9	30.3	19.6	43.7	36.4	47.6	.....
Vegetables	3.9	16.7	5.9	3.2	0.8	6.7	.....
Fruits	0.7	4.1	0.6	0.3	0.3	1.2	.....
Live stock	28.3	13.1	12.2	32.4	30.1	26.7	.....

TABLE CXII.—PER CENT OF ALL FARMS OPERATED BY INDIAN FARMERS, JUNE 1, 1900, IN SPECIFIED GROUPS OF FARMS CLASSIFIED BY AREA, PRINCIPAL SOURCE OF INCOME, VALUE OF PRODUCTS OF 1899 NOT FED TO LIVE STOCK, AND BY TENURE, BY GEOGRAPHIC DIVISIONS—Continued.

B.—FARMS CLASSIFIED BY PRINCIPAL SOURCE OF INCOME—Continued.

GROUPS OF FARMS.	The United States.	GEOGRAPHIC DIVISIONS.					
		North Atlantic.	South Atlantic.	North Central.	South Central.	Western.	Alaska and Hawaii.[1]
Dairy produce	1.8	6.8	0.2	2.5	0.6	2.7	.....
Tobacco	0.1	.....	1.2	(2)	(2)	.....	.....
Cotton	9.4	.....	24.6	(2)	22.2	.....	.....
Rice	.....	.....	0.1	.....	.....	.....	.....
Sugar	(2)	.....	.....	.....	0.1	.....	.....
Flowers and plants	.....	.....	.....	.....	.....	.....	.....
Nursery products	.....	.....	.....	.....	.....	.....	.....
Taro	.....	.....	.....	.....	.....	.....	.....
Coffee	.....	.....	.....	.....	.....	.....	.....
Miscellaneous	14.9	29.0	35.6	17.9	9.5	15.1	.....

C.—FARMS CLASSIFIED BY VALUE OF PRODUCTS OF 1899 NOT FED TO LIVE STOCK.

$0	8.4	0.3	0.8	8.8	7.2	11.1	.....
$1 and under $50	21.1	12.8	16.8	23.0	13.9	28.9	.....
$50 and under $100	16.6	14.8	17.2	22.5	10.4	19.3	.....
$100 and under $250	27.1	34.7	32.7	29.0	27.4	24.2	.....
$250 and under $500	14.0	23.2	20.2	10.4	19.1	9.4	.....
$500 and under $1,000	7.8	9.8	9.7	4.7	12.3	4.5	.....
$1,000 and under $2,500	3.9	3.8	2.5	1.4	7.4	2.0	.....
$2,500 and over	1.1	0.6	0.1	0.2	2.3	0.6	.....

D.—FARMS CLASSIFIED BY TENURE.

Owners	90.4	85.3	73.6	96.3	86.5	93.4	.....
Part owners	2.7	9.0	3.9	1.4	1.4	4.5	.....
Owners and tenants	0.6	.....	0.2	0.1	0.9	0.6	.....
Managers	0.3	0.3	0.2	0.2	0.4	0.3	.....
Cash tenants	1.1	0.8	7.7	0.3	1.5	0.4	.....
Share tenants	4.9	4.6	14.4	1.7	0.3	9.8	.....

[1] No Indian farmers reported in Alaska or Hawaii.
[2] Less than one-tenth of 1 per cent.

The Indians in nearly all parts of the country find their principal source of agricultural income in the raising of live stock and in the cultivation of hay and grain. Their incomes were mostly small, although in the South Central division, notably in Indian Territory, incomes of considerable size were reported. The Indian farmers were nearly always owners, and when reported as tenants they held their titles from other Indians and not from white men. It is not improbable that a more perfect statement of the facts would show that the greater portion of those here reported as tenants should have been reported as owners.

Table CXIII gives, by states and territories, the acreage, reported values of farm property and products, and expenditures of Indian farms, with averages and percentages.

TABLE CXIII.—NUMBER AND ACREAGE OF FARMS OF INDIAN FARMERS AND VALUE OF SPECIFIED FORMS STATES AND

	STATES AND TERRITORIES.	NUMBER OF FARMS.		ACREAGE, JUNE 1, 1900.			VALUE OF FARM PROPERTY, JUNE 1, 1900.				
		Total.	With buildings.	Total.	Improved.	Per cent improved.	Total.	Land and improvements (except buildings).	Buildings.	Implements and machinery.	Live stock.
1	The United States	19,910	17,534	3,433,568	874,385	25.5	$38,239,478	$18,210,243	$3,778,946	$1,756,151	$14,494,138
2	North Atlantic division	366	353	22,782	14,639	64.3	651,571	373,612	167,240	39,723	70,996
3	Maine	5	5	312	74	23.7	3,048	1,290	1,160	192	406
4	New Hampshire	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
5	Vermont	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
6	Massachusetts	22	22	1,357	413	30.4	31,532	11,876	14,820	1,875	2,961
7	Rhode Island	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
8	Connecticut	2	2	57	22	38.6	6,983	4,900	1,600	175	308
9	New York	331	321	20,744	13,949	67.2	601,797	349,196	148,810	37,276	66,515
10	New Jersey	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
11	Pennsylvania	6	3	312	181	58.0	8,211	6,350	850	205	806
12	South Atlantic division	935	908	63,651	21,304	33.5	563,201	374,980	92,523	18,401	77,297
13	Delaware	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
14	Maryland	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
15	District of Columbia	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
16	Virginia	39	39	1,920	914	47.6	38,910	23,760	9,555	1,395	4,200
17	West Virginia	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
18	North Carolina	868	841	60,928	19,934	32.7	509,989	340,885	81,733	16,760	70,611
19	South Carolina	20	20	566	323	57.1	8,393	5,795	745	155	1,698
20	Georgia	3	3	65	30	46.2	623	250	200	10	163
21	Florida	5	5	172	103	59.9	5,286	4,290	290	81	625
22	North Central division	4,637	4,259	1,424,943	170,482	12.0	9,716,834	5,886,563	799,828	486,310	2,544,133
23	Ohio	2	2	160	134	83.8	7,181	4,675	1,625	305	576
24	Indiana	19	19	1,229	947	77.1	54,708	41,580	7,500	1,535	4,093
25	Illinois	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
26	Michigan	347	336	15,144	7,056	46.6	308,256	195,475	54,540	15,445	42,796
27	Wisconsin	462	443	52,138	10,607	20.3	918,047	699,715	99,035	37,407	81,890
28	Minnesota	341	327	61,378	15,148	24.7	789,699	590,816	75,750	40,490	82,643
29	Iowa	27	17	659	659	100.0	38,534	26,200	2,610	3,205	6,519
30	Missouri	3	3	60	30	50.0	977	560	140	88	189
31	North Dakota	1,316	1,203	144,714	40,208	27.8	1,337,105	289,865	175,630	102,395	769,215
32	South Dakota	1,788	1,597	1,103,854	77,876	7.1	5,170,153	3,235,365	267,675	249,175	1,417,938
33	Nebraska	249	231	31,691	9,976	31.5	660,082	518,370	63,795	25,758	52,159
34	Kansas	83	81	13,016	7,841	60.2	432,092	283,942	51,528	10,507	86,115
35	South Central division	7,354	7,155	1,261,045	471,784	37.4	17,941,897	7,384,499	2,071,250	672,293	7,813,855
36	Kentucky	11	11	901	331	36.7	4,204	2,725	425	57	997
37	Tennessee	12	11	413	161	39.0	6,548	4,930	460	263	895
38	Alabama	14	13	1,098	224	20.4	9,542	4,885	1,875	410	2,372
39	Mississippi	328	314	17,124	7,804	45.6	96,460	53,706	16,498	3,812	22,444
40	Louisiana	62	59	4,672	1,006	21.5	32,335	20,110	3,420	890	7,915
41	Texas	51	51	4,854	1,201	24.7	37,201	22,711	4,345	1,008	9,137
42	Oklahoma	915	805	234,954	44,529	19.0	2,527,455	1,489,331	200,909	85,511	751,704
43	Indian Territory	5,957	5,887	996,784	416,418	41.8	15,225,039	5,784,046	1,842,983	580,217	7,017,793
44	Arkansas	4	4	245	110	44.9	3,113	2,055	335	125	598
45	Western division	6,618	4,859	662,047	196,176	29.6	9,365,975	4,190,589	648,105	539,424	3,987,857
46	Montana	281	280	36,554	18,539	50.7	1,010,158	316,545	79,155	73,680	540,778
47	Wyoming	167	123	22,380	1,885	8.4	94,657	29,800	12,980	935	50,942
48	Colorado	15	15	2,320	257	11.1	7,434	3,995	1,245	1,240	954
49	New Mexico	1,401	985	62,472	23,544	37.7	794,226	350,330	13,305	53,463	377,128
50	Arizona	1,770	828	43,502	26,782	61.6	1,990,364	573,670	30,830	67,915	1,317,949
51	Utah	199	140	18,983	5,808	30.6	324,287	109,386	34,794	15,985	164,122
52	Nevada	155	135	5,635	2,552	45.3	81,149	39,525	6,135	7,815	27,674
53	Idaho	568	464	101,869	34,363	33.7	1,491,067	649,145	126,195	122,528	593,199
54	Washington	966	907	111,180	29,896	26.9	1,847,635	989,829	180,230	119,129	558,447
55	Oregon	448	405	201,826	40,926	20.3	962,655	674,329	64,381	42,813	181,132
56	California	658	577	55,326	11,624	21.0	762,343	454,035	98,855	33,921	175,532
57	Alaska	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
58	Hawaii	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

FARMS CLASSIFIED BY COLOR OR RACE OF FARMER.

OF FARM PROPERTY, VALUE OF PRODUCTS, AND EXPENDITURES FOR LABOR AND FERTILIZERS, BY TERRITORIES.

VALUE OF PRODUCTS, 1899.				EXPENDITURES, 1899.		AVERAGE VALUE PER FARM.								AVERAGE EXPENDITURES PER FARM, 1899.		
						Farm property, June 1, 1900.					Products, 1899.					
Total.	Fed to live stock.	Not fed to live stock.	Per cent not fed, to value of property.	Labor.	Fertilizers.	Total.	Land and improvements (except buildings).	Buildings.	Implements and machinery.	Live stock.	Total.	Not fed to live stock.	Average value per acre of products of 1899 not fed.	Labor.	Fertilizers.	
$7,394,573	$1,400,003	$5,994,570	15.7	$375,656	$23,273	$1,921	$915	$190	$88	$728	$371	$301	$1.75	$19	$1	1
144,386	36,210	108,176	16.6	5,991	280	1,780	1,021	457	108	194	394	296	4.75	16	1	2
2,835	155	2,680	87.9	10	7	610	258	232	39	81	567	536	8.59	2	1	3
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	4
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	5
7,744	1,216	6,528	20.7	835	18	1,433	540	674	85	134	352	297	4.81	38	1	6
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	7
614	487	127	1.8	75	3	3,492	2,450	800	88	154	307	64	2.23	38	2	8
131,224	34,065	97,159	16.1	5,071	252	1,818	1,055	449	113	201	396	294	4.68	15	1	9
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	10
1,969	287	1,682	20.5	.....	.....	1,368	1,058	142	34	134	328	280	5.39	.....	.....	11
246,990	26,379	220,611	39.2	14,547	19,303	602	401	99	20	82	264	236	3.47	16	21	12
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	13
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	14
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	15
14,924	1,118	13,806	35.5	1,423	1,278	998	609	245	36	108	383	354	7.19	36	33	16
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	17
227,082	24,504	202,578	39.7	12,774	17,610	588	393	94	19	82	262	233	3.32	15	20	18
3,080	328	2,752	32.8	30	275	420	290	37	8	85	154	138	4.86	2	14	19
199	53	146	23.4	.....	.....	208	84	67	3	54	66	49	2.25	.....	.....	20
1,705	376	1,329	25.1	320	140	1,057	858	58	16	125	341	266	7.73	64	28	21
1,180,803	280,338	900,465	9.3	34,805	573	2,096	1,269	173	105	549	255	194	0.63	8	.....	22
1,489	721	768	10.7	50	.....	3,590	2,338	812	152	288	744	384	4.80	25	.....	23
10,055	2,211	7,844	14.4	285	.....	2,879	2,188	395	81	215	529	413	6.38	12	.....	24
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	25
62,140	15,849	46,291	15.0	1,902	15	888	563	157	45	123	179	133	3.06	5	.....	26
75,044	22,588	52,456	5.7	2,893	30	1,987	1,515	214	81	177	162	114	1.01	6	.....	27
108,889	30,160	78,729	10.0	4,515	350	2,316	1,733	222	119	242	319	231	1.28	13	1	28
5,886	1,464	4,422	11.5	200	.....	1,427	970	97	119	241	218	164	6.71	7	.....	29
398	16	382	39.1	.....	.....	326	187	47	29	63	133	127	6.36	.....	.....	30
269,475	65,844	203,631	15.2	4,060	.....	1,016	220	133	78	585	205	155	1.41	3	.....	31
521,353	109,146	412,207	8.0	14,210	20	2,892	1,810	150	139	793	292	231	0.37	8	.....	32
53,218	17,105	36,113	5.5	1,415	.....	2,651	2,082	256	103	210	214	145	1.14	6	.....	33
72,856	15,234	57,622	13.3	5,325	158	5,206	3,421	621	127	1,037	878	694	4.43	64	2	34
4,101,267	611,873	3,489,394	19.4	209,753	1,490	2,440	1,004	282	91	1,063	558	474	2.77	29	.....	35
2,303	362	1,941	46.2	40	.....	382	248	38	5	91	209	176	2.15	4	.....	36
1,755	339	1,416	21.6	30	.....	546	411	38	22	75	146	118	3.43	2	.....	37
1,771	488	1,283	13.4	.....	83	682	349	134	29	170	126	92	1.17	.....	6	38
66,164	6,560	59,604	61.8	699	1,396	294	164	50	12	68	202	182	3.48	2	4	39
17,706	1,936	15,770	48.8	25	5	522	325	55	14	128	286	254	3.38	.....	.....	40
13,026	2,144	10,882	29.3	28	6	729	445	85	20	179	256	213	2.24	1	.....	41
248,603	77,067	171,536	6.8	12,467	.....	2,762	1,628	220	93	821	272	187	0.73	14	.....	42
3,748,090	522,772	3,225,318	21.2	196,454	.....	2,556	971	309	98	1,178	629	541	3.24	33	.....	43
1,849	205	1,644	52.8	100	.....	778	514	84	31	149	462	411	6.71	25	.....	44
1,721,127	445,203	1,275,924	13.6	110,560	1,627	1,415	633	98	81	603	260	193	1.93	17	.....	45
251,667	85,991	165,676	16.4	17,070	5	3,595	1,127	282	262	1,924	896	590	4.53	61	.....	46
9,898	9,706	192	0.2	.....	.....	567	178	78	6	305	59	1	0.01	.....	.....	47
3,018	921	2,097	28.2	.....	.....	496	266	83	83	64	201	140	0.90	.....	.....	48
148,753	35,502	113,251	14.3	1,294	.....	567	250	10	38	269	106	80	1.81	1	.....	49
224,122	390	223,732	11.2	5,075	.....	1,124	324	17	38	745	127	126	5.14	3	.....	50
34,415	10,933	23,482	7.2	1,115	.....	1,630	550	175	80	825	173	118	1.24	6	.....	51
18,357	8,700	9,657	11.9	560	.....	524	265	40	50	179	118	62	1.71	4	.....	52
232,527	89,536	142,991	9.6	29,195	290	2,648	1,153	224	217	1,054	413	254	1.40	52	1	53
403,171	138,170	265,001	14.3	33,147	98	1,913	1,025	187	123	578	417	274	2.38	34	.....	54
121,762	33,528	88,234	9.2	13,458	25	2,173	1,522	145	97	409	275	199	0.44	30	.....	55
273,437	31,826	241,611	31.7	9,646	1,209	1,159	690	150	52	267	416	367	4.37	15	2	56
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	57
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	58

As was explained in the discussion of the figures of table LXIX, the 19,910 farms of Indians in reality represent more than that number of farm families, particularly in Arizona and New Mexico. The total acreage accredited to the Indians was 3,433,568, or an average of 172.5 acres. Of this land 25.5 per cent was improved. Including the value of live stock and of implements, their farms had a reported value of $38,239,478, or $1,921 per farm. Of that average $915 represented the value of land; $190, that of buildings; $88, that of implements and machinery; and $728, that of live stock.

The most valuable farms reported for Indians were in Kansas, where the average, including the value of lands, buildings, etc., was $5,206. In Montana the corresponding average was $3,595; in Oklahoma, $2,762; in Indian Territory, $2,556; in Maine, $610; in South Carolina, $420; in Missouri, $326; and in Georgia, $208. The greatest value of live stock per farm, $1,924, was in Montana, and the lowest, $54, in Georgia. This value in Indian Territory was $1,178, and in Kansas $1,037.

In most of the states for which statistics of agriculture among the Indians are given, the tribes were located on reservations, and as this is the first time such statistics have appeared in any census publication, a general statement has been prepared of the character of the agricultural operations on all the reservations from which separate reports were returned by the enumerators, and will be found under the head of "Indian reservations," following the general tables.

Accompanying this detailed information relating to the character of agriculture on the Indian reservations, are briefer statements concerning all other Indians in the United States whose farming operations are reported in the statistics of this volume.

NUMBER AND ACRES OF FARMS OPERATED BY CHINESE, JAPANESE, AND HAWAIIAN FARMERS.

TABLE CXIV.—NUMBER OF FARMS, JUNE 1, 1900, OPERATED BY CHINESE, JAPANESE, AND HAWAIIAN FARMERS, IN SPECIFIED GROUPS OF FARMS CLASSIFIED BY AREA, PRINCIPAL SOURCE OF INCOME, VALUE OF PRODUCTS OF 1899 NOT FED TO LIVE STOCK, AND BY TENURE.

A.—FARMS CLASSIFIED BY AREA IN ACRES.

GROUPS OF FARMS.	Chinese.	Japanese.	Hawaiian.[1]
Total	1,842	570	489
Under 3	274	152	122
3 and under 10	425	252	140
10 and under 20	326	101	50
20 and under 50	366	43	53
50 and under 100	197	9	52
100 and under 175	152	4	18
175 and under 260	61	3	11
260 and under 500	26	4	17
500 and under 1,000	7	.....	9
1,000 and over	8	2	17

[1] Including part Hawaiians and 1 South Sea Islander.

TABLE CXIV.—NUMBER OF FARMS, JUNE 1, 1900, OPERATED BY CHINESE, JAPANESE, AND HAWAIIAN FARMERS, IN SPECIFIED GROUPS OF FARMS CLASSIFIED BY AREA, PRINCIPAL SOURCE OF INCOME, VALUE OF PRODUCTS OF 1899 NOT FED TO LIVE STOCK, AND BY TENURE—Continued.

B.—FARMS CLASSIFIED BY PRINCIPAL SOURCE OF INCOME.

GROUP OF FARMS.	Chinese.	Japanese.	Hawaiian.[1]
Hay and grain	64	1	.....
Vegetables	684	37	18
Fruits	275	44	14
Live stock	102	15	41
Dairy produce	5	5	6
Tobacco	22	.....	.....
Cotton	8	.....	.....
Rice	394	87	14
Sugar	21	59	6
Flowers and plants	1	6	.....
Nursery products	.....	1	.....
Taro	90	51	263
Coffee	41	187	103
Miscellaneous	135	77	24

C.—FARMS CLASSIFIED BY VALUE OF PRODUCTS OF 1899 NOT FED TO LIVE STOCK.

$0	49	6	24
$1 and under $50	32	20	26
$50 and under $100	55	33	60
$100 and under $250	160	155	172
$250 and under $500	250	178	95
$500 and under $1,000	375	113	54
$1,000 and under $2,500	460	54	34
$2,500 and over	461	11	23

D.—FARMS CLASSIFIED BY TENURE.

Owners	133	46	288
Part owners	31	5	73
Owners and tenants	1	.....	.....
Managers	45	2	7
Cash tenants	1,442	485	105
Share tenants	190	32	16

[1] Including part Hawaiians and 1 South Sea Islander.

TABLE CXV.—PER CENT OF FARMS, JUNE 1, 1900, OPERATED BY CHINESE, JAPANESE, AND HAWAIIAN FARMERS, IN SPECIFIED GROUPS OF FARMS CLASSIFIED BY AREA, PRINCIPAL SOURCE OF INCOME, VALUE OF PRODUCTS OF 1899 NOT FED TO LIVE STOCK, AND BY TENURE.

A.—FARMS CLASSIFIED BY AREA IN ACRES.

GROUPS OF FARMS.	Chinese.	Japanese.	Hawaiian.[1]
Total	100.0	100.0	100.0
Under 3	14.9	26.7	25.0
3 and under 10	23.1	44.2	28.6
10 and under 20	17.7	17.7	10.2
20 and under 50	19.9	7.5	10.8
50 and under 100	10.7	1.6	10.6
100 and under 175	8.2	0.7	3.7
175 and under 260	3.3	0.5	2.3
260 and under 500	1.4	0.7	3.5
500 and under 1,000	0.4	.....	1.8
1,000 and over	0.4	0.4	3.5

[1] Including part Hawaiians and 1 South Sea Islander.

TABLE CXV.—PER CENT OF FARMS, JUNE 1, 1900, OPERATED BY CHINESE, JAPANESE, AND HAWAIIAN FARMERS, IN SPECIFIED GROUPS OF FARMS CLASSIFIED BY AREA, PRINCIPAL SOURCE OF INCOME, VALUE OF PRODUCTS OF 1899 NOT FED TO LIVE STOCK, AND BY TENURE—Continued.

B.—FARMS CLASSIFIED BY PRINCIPAL SOURCE OF INCOME.

GROUPS OF FARMS.	Chinese.	Japanese.	Hawaiian.[1]
Hay and grain	3.5	0.2	.....
Vegetables	37.1	6.5	3.7
Fruits	14.9	7.7	2.9
Live stock	5.5	2.6	8.4
Dairy produce	0.3	0.9	1.2
Tobacco	1.2	.....	.....
Cotton	0.4	.....	.....
Rice	21.4	15.3	2.8
Sugar	1.2	10.3	1.2
Flowers and plants	0.1	1.1	.....
Nursery products	.....	0.2	.....
Taro	4.9	8.9	53.8
Coffee	2.2	32.8	21.1
Miscellaneous	7.3	13.5	4.9

C.—FARMS CLASSIFIED BY VALUE OF PRODUCTS OF 1899 NOT FED TO LIVE STOCK.

$0	2.7	1.1	4.9
$1 and under $50	1.7	3.5	5.3
$50 and under $100	3.0	5.8	12.3
$100 and under $250	8.7	27.2	35.2
$250 and under $500	13.6	31.2	19.4
$500 and under $1,000	20.3	19.8	11.2
$1,000 and under $2,500	25.0	9.5	7.0
$2,500 and over	25.0	1.9	4.7

D.—FARMS CLASSIFIED BY TENURE.

Owners	7.2	8.1	58.9
Part owners	1.7	0.9	14.9
Owners and tenants	0.1	.....	.....
Managers	2.4	0.3	1.4
Cash tenants	78.3	85.1	21.5
Share tenants	10.3	5.6	3.3

[1] Including part Hawaiians and 1 South Sea Islander.

The explanation of these percentages has already been given in connection with the discussion of tables XCIV to XCVIII and need not here be repeated.

The 570 farms of Japanese had a total area of 21,174 acres and an average area of 37.1 acres, of which 30.7 per cent were improved. The total value of the farm property of the Japanese was $992,035, an average of $1,740 per farm, or less than one-third that of the Chinese. Of this value $1,410 represents the land; $194, buildings; $76, implements and machinery; and $61, live stock. Of their farms 531 were in Hawaii; 37, in California; and 2, in Oregon. In California the farms of the Japanese, like those of the Chinese, had a very high average value—$13,946—but the low-valued farms in Hawaii, which constituted the great majority of the farms of this race, greatly reduced the average.

The Hawaiians and part Hawaiians had farms of large average area, that for the former being 895.3 acres, and that for the latter, 1,762.5 acres. The values were also higher than for the average white farmers of the United States, being $4,392 for the Hawaiians and $9,250 for the part Hawaiians.

Table CXIV gives the number and acreage of farms operated by Chinese, Japanese, Hawaiian, and part Hawaiian farmers, the value of specified classes of their farm property, value of products, and expenditures, with averages and percentages, by states and territories.

TABLE CXVI.—NUMBER AND ACREAGE OF FARMS OF CHINESE, JAPANESE, AND HAWAIIAN FARMERS, AND VALUE TILIZERS, BY STATES

A.—CHINESE FARMERS.

	STATES AND TERRITORIES.	NUMBER OF FARMS.		ACREAGE, JUNE 1, 1900.			VALUE OF FARM PROPERTY, JUNE 1, 1900.				
		Total.	With buildings.	Total.	Improved.	Per cent improved.	Total.	Land and improvements (except buildings).	Buildings.	Implements and machinery.	Live stock.
1	The United States	1,842	1,713	117,444	69,652	59.3	$10,969,914	$9,654,476	$655,631	$292,415	$367,392
2	North Atlantic division	13	13	50	50	100.0	111,440	105,500	3,950	1,670	320
3	Massachusetts	1	1	6	6	100.0	1,210	500	500	100	110
4	New York	11	11	38	38	100.0	108,920	104,100	3,150	1,460	210
5	New Jersey	1	1	6	6	100.0	1,310	900	300	110	.....
6	South Atlantic division	3	3	53	52	98.1	11,686	7,650	3,150	400	486
7	Delaware	1	1	8	8	100.0	986	350	450	50	136
8	Maryland	1	1	25	24	96.0	1,300	800	200	250	50
9	Georgia	1	1	20	20	100.0	9,400	6,500	2,500	100	300
10	North Central division	8	6	224	144	64.5	7,983	4,825	1,225	495	1,438
11	Ohio	1	1	5	5	100.0	740	200	300	150	90
12	Illinois	3	3	105	95	90.5	3,512	2,300	700	90	422
13	South Dakota	1	1	80	10	12.5	1,931	1,400	100	10	424
14	Nebraska	2	1	17	17	100.0	1,347	625	125	170	427
15	Kansas	1	.....	17	17	100.0	450	300	.....	75	75
16	South Central division	16	16	860	683	79.4	25,897	18,255	2,805	1,290	3,547
17	Louisiana	2	2	11	10	90.9	2,870	2,075	375	170	250
18	Texas	13	13	808	648	80.2	21,802	15,880	2,230	995	2,697
19	Arkansas	1	1	41	25	61.0	1,225	300	200	125	600
20	Western division	1,060	967	92,650	56,317	60.8	7,867,003	7,046,316	416,096	202,290	202,301
21	Montana	26	20	1,762	975	55.3	75,482	57,430	4,920	4,095	9,037
22	Wyoming	4	2	6	6	100.0	1,691	950	550	155	36
23	New Mexico	3	3	20	20	100.0	5,710	2,235	565	2,120	790
24	Arizona	18	18	599	457	76.3	32,794	24,190	3,540	2,115	2,949
25	Utah	33	22	167	166	99.4	62,135	56,804	2,672	1,795	864
26	Nevada	15	12	287	130	45.3	20,899	10,045	2,055	1,770	7,029
27	Idaho	23	23	376	330	87.8	71,801	60,240	3,615	3,296	4,650
28	Washington	69	47	1,770	1,247	70.5	229,699	200,841	14,990	5,747	8,121
29	Oregon	92	85	2,487	1,804	42.5	225,451	181,711	24,424	7,107	12,209
30	California	777	735	85,176	51,182	60.1	7,141,341	6,451,870	358,765	174,090	156,616
31	Hawaii	742	708	23,607	12,406	52.6	2,945,905	2,471,930	228,405	86,270	159,300

B.—JAPANESE FARMERS.

32	The United States	570	553	21,174	6,494	30.7	$992,035	$803,675	$110,320	$43,387	$34,653
33	Oregon	2	2	24	8	33.3	2,767	1,700	800	50	217
34	California	37	36	4,674	2,756	59.0	516,020	409,085	64,390	33,247	9,298
35	Hawaii	531	515	16,476	3,730	22.6	473,248	392,890	45,130	10,090	25,138

C.—HAWAIIAN FARMERS.

36	Hawaiian territory	489	397	487,240	25,890	5.3	$2,424,788	$1,699,040	$195,400	$15,890	$514,458
37	Hawaiian[1]	432	353	386,776	5,481	1.4	1,897,519	1,359,270	152,520	11,770	373,959
38	Part Hawaiian	57	44	100,464	20,409	20.3	527,269	339,770	42,880	4,120	140,499

[1] Including 1 South Sea Islander.

OF SPECIFIED FORMS OF FARM PROPERTY, VALUE OF PRODUCTS, AND EXPENDITURES FOR LABOR AND FER-
AND TERRITORIES.

A.—CHINESE FARMERS.

VALUE OF PRODUCTS, 1899.				EXPENDITURES, 1899.		AVERAGE VALUES PER FARM.								AVERAGE EXPENDITURES PER FARM, 1899.		
						Farm property, June 1, 1900.					Products, 1899.					
Total.	Fed to live stock.	Not fed to live stock.	Per cent not fed, to value of property.	Labor.	Fertilizers.	Total.	Land and improvements (except buildings).	Buildings.	Implements and machinery.	Live stock.	Total.	Not fed to live stock.	Average value per acre of products of 1899 not fed.	Labor.	Fertilizers.	
$4,284,537	$70,254	$4,214,283	38.4	$1,320,831	$34,083	$5,955	$5,241	$356	$159	$199	$2,326	$2,288	$35.88	$717	$19	1
13,279	50	13,229	11.0	925	2,755	8,572	8,115	304	128	25	1,021	1,018	264.58	71	212	2
134	50	84	6.9	.....	.....	1,210	500	500	100	110	134	84	14.00	.....	.....	3
9,145	.....	9,145	8.4	580	2,270	9,902	9,464	286	133	19	831	832	240.58	53	206	4
4,000	.....	4,000	305.3	345	485	1,310	900	300	110	.....	4,000	4,000	666.67	345	485	5
4,678	120	4,558	39.0	4,112	500	3,895	2,550	1,050	133	162	1,559	1,519	86.00	1,371	167	6
359	80	279	28.4	12	.....	986	350	450	50	136	359	279	34.88	12	.....	7
149	20	129	9.9	100	.....	1,300	800	200	250	50	149	129	5.16	100	.....	8
4,170	20	4,150	44.1	4,000	500	9,400	6,500	2,500	100	300	4,170	4,150	207.50	4,000	500	9
2,901	154	2,747	34.4	.....	.....	998	603	153	62	180	163	343	12.26	.....	.....	10
145	.....	145	19.6	.....	.....	740	200	300	150	90	145	145	29.00	.....	.....	11
1,050	124	926	26.4	.....	.....	1,171	767	233	30	141	350	831	8.82	.....	.....	12
230	30	200	10.3	.....	.....	1,934	1,400	100	10	424	230	200	2.50	.....	.....	13
1,275	.....	1,275	94.7	.....	.....	674	313	63	85	214	638	638	75.00	.....	.....	14
201	.....	201	44.7	.....	.....	450	300	.....	75	75	201	201	11.83	.....	.....	15
9,414	521	8,893	34.3	6,253	.....	1,619	1,141	175	81	222	588	556	10.34	391	.....	16
800	.....	800	27.9	750	.....	1,435	1,038	188	85	125	400	400	72.73	375	.....	17
8,214	521	7,693	35.3	5,403	.....	1,677	1,222	172	77	207	632	592	9.52	416	.....	18
400	.....	400	32.7	100	.....	1,225	300	200	125	600	400	400	9.76	100	.....	19
2,421,635	69,409	2,352,226	29.9	303,421	13,798	7,422	6,647	393	191	191	2,285	2,220	25.39	758	13	20
37,041	2,120	34,921	46.3	21,160	210	2,903	2,209	189	157	348	1,425	1,343	19.82	814	8	21
621	.....	621	36.7	225	.....	423	237	138	39	9	155	154	103.50	56	.....	22
6,598	265	6,333	110.9	1,950	.....	1,903	745	188	707	263	2,199	2,111	316.65	650	.....	23
26,902	24,542	2,360	7.2	12,150	.....	1,822	1,344	197	118	164	1,495	131	3.94	675	.....	24
24,943	.....	24,943	40.2	3,552	.....	1,883	1,721	81	54	26	756	756	149.36	108	.....	25
12,955	755	12,200	58.4	4,200	.....	1,393	670	137	118	469	864	813	42.51	280	.....	26
26,529	272	26,257	36.6	10,350	2,160	3,122	2,619	157	143	202	1,153	1,142	69.83	450	94	27
76,318	1,129	75,189	32.7	24,328	530	3,329	2,911	217	88	118	1,106	1,090	42.48	353	8	28
103,773	883	102,890	45.6	38,747	570	2,451	1,975	265	77	133	1,128	1,118	41.37	421	6	29
2,105,955	39,443	2,066,512	28.9	686,759	10,328	9,191	8,304	462	224	202	2,710	2,660	24.26	884	13	30
1,832,630	.....	1,832,630	62.2	506,120	17,030	3,970	3,331	308	116	215	2,470	2,470	77.63	682	23	31

B.—JAPANESE FARMERS.

$306,137	$2,322	$303,815	30.9	$91,512	$7,798	$1,740	$1,410	$194	$76	$61	$537	$1,142	$14.35	$161	$14	32
736	60	676	24.4	50	25	1,384	850	400	25	109	368	338	28.17	25	13	33
71,761	2,262	69,499	13.5	31,592	73	13,946	11,056	1,740	899	251	1,939	1,878	14.87	354	2	34
233,640	.....	233,640	49.4	59,870	7,700	891	740	85	19	47	440	440	14.18	113	15	35

C.—HAWAIIAN FARMERS.

363,200	.....	$363,200	15.0	$62,590	$3,820	$4,959	$3,475	$400	$82	$1,052	$743	$743	$0.75	$128	$8	36
297,520	.....	297,520	15.7	43,930	3,550	4,392	3,146	358	27	866	689	689	0.77	102	8	37
65,680	.....	65,680	12.5	18,660	270	9,250	5,961	752	72	2,465	1,152	1,152	0.65	327	5	38

A comparison of the statistics of the farms of the Chinese, Japanese, Hawaiian, and part Hawaiian farmers with those of the white, negro, and Indian farmers, given in preceding tables, shows the following average farm acreages: White, 160.7; negro, 51.2; Indian, 172.5; Chinese, 63.8; Japanese, 37.1; Hawaiian, 895.3; and part Hawaiian, 1,762.5. The average values per farm were as follows: White, $4,016; negro, $669; Indian, $1,921; Chinese, $5,955; Japanese, $1,740; Hawaiian, $4,392; and part Hawaiian, $9,250.

The per cent of improved land in the farms of the white race was 48.9; negro, 61.1; Indian, 25.5; Chinese, 59.3; Japanese, 30.7; Hawaiian, 1.4; and part Hawaiian, 20.3.

The Chinese had smaller farms on an average than the white farmers, and farms that had higher average values of land and implements, but not of buildings nor of live stock. A large relative number of their farms were located near cities, and the high value of the lands reported was due in part to the speculative value of land held for building purposes. These lands were often vacant lots, and thus show a considerably smaller average value of buildings and a small per cent of farms with buildings.

Table cxv gives the number of farms of Chinese, Japanese, and Hawaiians in specified groups of farms classified by area, principal source of income, amount of income, and tenure, and table cxvi gives percentages for the same groups.

VALUE OF FARM PRODUCTS IN 1899.

IMPERFECTIONS OF FORMER CENSUS REPORTS.

The first census to collect statistics of the value of farm products was that of 1870. It called for an estimate by the farmers of the value of their products in the preceding year, including the value of products sold, consumed at home, and on hand June 1, 1870, together with a statement of the value of betterments and additions to stock. The estimated value for 1869 aggregated $2,447,538,658, or, allowing 20 per cent for depreciated currency, $1,958,030,927. The census of 1880 sought to secure estimates of the farm value of the products of 1879. It called for the same estimates as ten years before, except that of betterments and additions to stock. The estimated value in 1880 aggregated $2,212,540,927.

The Superintendent of the Tenth Census did not consider the aggregate thus returned a complete or adequate statement of the value of farm products, or of the income of the farmer from his agricultural operations. He stated his doubts concerning the subject and gave his explanation of the failure in the following quaint and forcible language (vol. III, page xxv):

> In the census of 1870 inquiry was for the first time made into the aggregate value of all farm productions, "including betterments and additions to stock." The amount returned under this head was $2,447,538,658.
>
> The returns which made up this aggregate were undoubtedly conservative, to say the very least. In the first place, they relate to the value of products, not at the market or on the railroad, but on the farm; it is the value to the farmer which is in question. Of course this makes a vast difference in the return of values. We hear of corn being burned at times as fuel, or sold at 10 cents a bushel. Such instances are doubtless rare, but the frequency of such statements may properly serve to remind us how wide is the difference between the prices of the market and those obtained on the land where the crops are raised. Even in the older states that difference never ceases to be considerable. Hence, any criticism of the returns in question, founded on computations in which the quantities of the several reported crops are multiplied by an assumed average price, is very likely to err widely in the direction of excess.
>
> Second. Such computations are likely to err, and in the same direction, by reason of duplications, which are excluded from the returns in question. A large part of the corn, and a still greater portion of the hay, returned in the census are consumed for the purpose of the annual product of animal food. If the values of both the vegetable and the animal products are counted, there will be duplication to this extent. The farmer, on the other hand, reports only the value to him of his ultimate product; of corn, if he sells his corn; of beef, if he has used his corn in fattening cattle for market.
>
> Third. It is undoubtedly true that, after making the foregoing allowances, the returns of the aggregate value of farm products are likely to be inadequate, by reason of the utter indisposition of the average agriculturist to reckon whatever is consumed upon the farm for himself and his family among the products he is called upon to appraise. The spirit of the command, "Thou shalt not muzzle the ox that treadeth out the corn," has a wider application in the mind of the farmer than to the dumb animals he employs. It would be altogether alien and repugnant to his sentiments to give a value, for the purposes of a statistical return, to the garden truck that is carried into the house, the fuel picked out of his woods, the fruit that his children eat, the corn that is sent to the mill for home use, or even the pig that is killed at Christmas. It stands in his mind, like the corn which the unmuzzled ox in the olden days caught up as he made his round among the grain on the thrashing floor. The statistician may just as well accept this limitation of the returns of the value of farm products first as last.
>
> Fourth. Altogether, in addition to the considerations indicated, it is not improbable that the fear of taxation, or an unreasoning reluctance to make a statement so summary, has an effect, in a small proportion of instances, to keep down the farmer's estimate of the value of his products.
>
> It has been said that the aggregate value of farm products returned in 1870 was about $2,450,000,000. This was stated to be inclusive of "betterments and additions to stock." The necessarily vague nature of the last-enumerated items, the time taken in estimating these, and the probability that at the best they would be estimated very imperfectly, led to the dropping of these items in preparation for the census of 1880, and the returns for this year

are accordingly exclusive of betterments and additions to stock. It can not be known how much the reported value was reduced on this account, but it was doubtless reduced to a considerable extent.

The census of 1890 made use of the same form of inquiry relating to the value of farm products as the Tenth Census. The aggregate value reported was $2,460,107,454. This amount was unquestionably far below the actual value. The statistician of the Department of Agriculture, shortly after the announcement of the census total, pointed out the fact that the six cereals, with hay and cotton, had a farm value in excess of that total, and that it, therefore, was deficient to an amount in excess of the value of all animals sold, and animals slaughtered on farms, and of all miscellaneous products of the farm. The reason for this failure of the Eleventh Census to secure an adequate report of the value of farm products was undoubtedly the same as that explained by the Superintendent of the Tenth Census.

The Twelfth Census made an effort to obtain, if possible, a more complete statement of the value of farm products. To secure such a statement, the farmers and enumerators were requested to state the value of all the important staple crops raised on farms, that of all animals sold, and animals slaughtered on farms, that of the poultry raised, and that of the various products not otherwise reported. The aggregate farm value of all products reported under this system of itemized account was $4,739,118,752.

VALUE OF ANIMAL PRODUCTS.

Of this amount, the value of the products derived from domestic animals, poultry, and bees, including that of animals sold and animals slaughtered on farms, is presented in table CXVII, and is here referred to as the value of animal products of farms.

TABLE CXVII.—QUANTITIES AND VALUES OF SPECIFIED ANIMAL PRODUCTS, AND VALUES OF POULTRY RAISED, ANIMALS SOLD, AND ANIMALS SLAUGHTERED ON FARMS IN 1899.

PRODUCTS.	Unit of measure.	Quantity.	Value.
Wool	Pounds	276,991,812	$45,723,739
Mohair and goat hair	do	961,328	267,864
Milk	Gallons	[1] 7,266,392,674	
Butter	Pounds	1,071,745,127	472,369,255
Cheese	do	16,372,330	
Eggs	Dozens	1,293,819,186	144,286,158
Poultry			136,891,877
Honey	Pounds	61,196,160	6,664,904
Wax	do	1,765,315	
Animals sold			722,913,114
Animals slaughtered			189,873,310
Total			1,718,990,221

[1] Includes all milk produced.

The total value of animal products in 1899 was $1,718,990,221, or 36.3 per cent of the total value of reported products. The two most important items in the foregoing total are the value of animals sold and that of dairy products, the former being $722,913,114, and the latter, $472,369,255.

VALUE OF CROPS.

Table CXVIII presents the acreage, quantities, and values of the farm crops in 1899.

TABLE CXVIII.—ACREAGE, QUANTITIES, AND VALUES OF FARM CROPS IN 1899.

CROPS.	Acres.	Unit of measure.	Quantity.	Value.
Corn	94,916,911	Bushels	2,666,440,279	$828,258,326
Wheat	52,588,574	do	658,534,252	369,945,320
Oats	29,539,698	do	943,389,375	217,098,584
Barley	4,470,196	do	119,634,877	41,631,762
Rye	2,054,292	do	25,568,625	12,290,540
Buckwheat	807,060	do	11,233,515	5,747,853
Broom corn	178,584	Pounds	90,947,370	3,588,414
Rice	351,344	do	283,722,627	7,891,613
Kafir corn	266,513	Bushels	5,169,113	1,367,040
Flaxseed	2,110,517	do	19,979,492	19,624,901
Clover seed		do	1,349,299	5,359,578
Grass seed		do	3,515,869	2,868,839
Hay and forage	61,691,166	Tons	84,011,299	484,256,846
Cottonseed		do	[1] 4,566,100	46,959,575
Cotton	24,275,101	Bales	9,534,707	323,758,171
Tobacco	1,101,483	Pounds	868,163,275	56,993,093
Hemp	16,042	do	11,750,630	546,338
Hops	55,613	do	49,209,704	4,081,929
Peanuts	516,658	Bushels	11,964,957	7,271,230
Peppermint	8,591	Pounds	187,427	143,618
Dry beans	453,867	Bushels	5,064,844	7,634,262
Castor beans	25,738	do	143,388	134,084
Dry pease	968,371	do	9,440,269	7,909,074
Potatoes	2,938,952	do	273,328,207	98,387,614
Sweet potatoes	537,447	do	42,526,696	19,876,200
Onions	47,983	do	11,791,121	6,637,625
Chicory	3,069	Pounds	21,495,870	73,627
Miscellaneous vegetables	2,115,570			113,871,842
Maple sugar		Pounds	11,928,770	1,074,260
Maple sirup		Gallons	2,056,611	1,562,451
Sugar cane	452,678	Tons	[2] 6,441,578	
(a) Cane sold		do	1,298,620	4,611,239
(b) Cane kept for seed		do	1,453,447	5,018,469
(c) Sugar made		Pounds	664,020,814	24,584,450
(d) Molasses made		Gallons	10,379,210	796,990
(e) Sirup made		do	12,293,032	4,293,475
Sorghum cane	293,152	Tons	[3] 291,703	815,019
Sorghum sirup		Gallons	16,972,783	5,288,083
Sugar beets	110,170	Tons	793,353	3,323,240
Small fruits	309,780			25,030,877
Grapes	[4] 282,473	Centals	13,010,134	[5] 14,090,937
Orchard fruits	[4] 6,064,887	Bushels	212,366,646	[6] 83,751,840
Tropical fruits	[4] 165,858			8,549,863
Nuts				1,950,161
Forest products				109,989,868
Flowers and plants	9,314			18,759,464
Miscellaneous seeds	10,106			826,019
Nursery products	59,492			10,123,873
Willows	521			36,523
Miscellaneous	23,793			[7] 1,452,613
Total	289,821,549			3,020,128,531

[1] Not including 166,861 tons sold with fiber before ginning.
[2] Comprising all cane grown, whether sold as cane, kept for seed, or used in the manufacture of sugar, molasses, and sirup.
[3] Sold as cane.
[4] Estimated from number of trees or vines.
[5] Including value of raisins, wine, etc.
[6] Including value of cider, vinegar, etc.
[7] The greater part of this value was derived from products for which no acreage was reported.

The cereals, including corn, wheat, oats, barley, rye, buckwheat, rice, and kafir corn, constitute 63.8 per cent of the total acreage, and 49.1 per cent of the total value. Hay and forage make up 21.3 per cent of the total acreage, and 16.0 per cent of the total value. The total value of all crops of the country, including forest products, was $3,020,128,531; of this amount, $974,941,046, or 32.3 per cent, represents the value of products fed to stock, leaving $2,045,187,485 as the value of that portion of the aggregate available for sale or for consumption in the families of its producers.

INCOMPLETENESS OF THE REPORT OF FARM PRODUCTS.

The total value of animal products and crops reported by the Twelfth Census, $4,739,118,752, is unques-

tionably a closer approximation to a complete value of farm products than has ever before been obtained by the United States census. It is not, however, believed to be complete. The values of the great staple crops, as cereals, cotton, and hay, were obtained with a comparatively narrow margin of error. Some schedules returned by the enumerators were defective, but the staple crops omitted on such schedules were generally supplied by correspondence. It was quite otherwise with respect to the products of the garden, those of the orchard, and of products consumed as food on the farm, especially milk, butter, eggs, and poultry. The reasons for imperfect reports in these cases are those so forcibly stated by Superintendent Walker in the extract given from the introduction to his report. Further, the enumerators and special agents reported great difficulty in securing returns of the sale of animals and the value of animals slaughtered on farms, and it is believed that the amounts reported under those totals in table CXVII are too small. Estimates of the values of the omitted items are given in detail under the discussions of dairy produce, value of animals sold, and animals slaughtered on farms, and value of vegetables and fruit. The aggregate of such omissions is believed to be not less than 5 nor more than 10 per cent of the total reported value of farm products. If this conclusion be correct, the total value of all farm products, including that of the animals sold, and animals slaughtered on farms, in 1899, was not less than $4,975,000,000, nor more than $5,225,000,000.

The omissions and errors in the South and West were unquestionably greater than in the North and East, but in the discussion which follows, no attempt will be made to distribute the value probably omitted, and reference will be made only to the amounts as reported by the enumerators, which aggregate $4,739,118,752. The distribution, by states and territories, of the values reported is given in table CXIX, which gives also the value of the products in 1899 not fed to live stock. To avoid duplicating farm values by first reporting those of hay and grain, and later adding to them those of the meat, milk, and butter secured by feeding the hay and grain to domestic animals, the value of products fed to live stock in 1899 is deducted from the total. The remainder, obtained by subtracting the value of the products fed from the unreduced value of all products, is given in the table under the head "value of products in 1899 not fed to live stock." It is also referred to in this explanatory text as the "gross farm income" for 1899. This is the amount used in determining the classification of farms by their principal source of income and amount of income.

TABLE CXIX.—TOTAL AND AVERAGE VALUES OF FARM PRODUCTS OF 1899, WITH PERCENTAGES, BY STATES AND TERRITORIES.

STATES AND TERRITORIES.	VALUE OF PRODUCTS.			Per cent not fed, to value of farm property.	AVERAGE VALUE PER FARM.			AVERAGE VALUE PER ACRE.		AVERAGE VALUE PER ACRE OF IMPROVED LAND.	
	Total.	Fed to live stock.	Not fed to live stock.		Total.	Fed to live stock.	Not fed to live stock.	Products fed.	Products not fed.	Products fed.	Products not fed.
The United States	$4,739,118,752	$974,941,046	$3,764,177,706	18.3	$826	$170	$656	$1.16	$4.47	$2.35	$9.07
North Atlantic division	666,347,164	171,925,080	494,422,084	16.8	984	254	730	2.63	7.56	4.42	12.70
Maine	37,113,469	9,847,860	27,265,609	22.3	626	166	460	1.56	4.33	4.13	11.42
New Hampshire	21,929,988	6,010,910	15,919,078	18.5	748	205	543	1.67	4.41	5.58	14.78
Vermont	33,570,892	11,576,590	21,994,302	20.3	1,014	350	664	2.45	4.66	5.44	10.34
Massachusetts	42,298,274	8,264,710	34,033,564	18.6	1,122	219	903	2.63	10.81	6.40	26.34
Rhode Island	6,333,864	969,140	5,364,724	19.9	1,152	176	976	2.13	11.78	5.17	28.63
Connecticut	28,276,948	6,178,000	22,098,948	19.5	1,049	229	820	2.67	9.56	5.80	20.76
New York	245,270,600	63,429,180	181,841,420	17.0	1,082	280	802	2.80	8.03	4.07	11.66
New Jersey	43,657,529	8,604,920	35,052,609	18.5	1,260	248	1,012	3.03	12.34	4.35	17.73
Pennsylvania	207,895,600	57,043,770	150,851,830	14.3	927	254	673	2.94	7.79	4.32	11.42
South Atlantic division	465,492,097	61,970,640	403,521,457	27.8	484	65	419	0.59	3.87	1.34	8.75
Delaware	9,290,777	1,889,920	7,400,857	18.2	959	195	764	1.77	6.94	2.51	9.82
Maryland	43,823,419	8,769,890	35,053,529	17.1	952	190	762	1.70	6.78	2.49	9.97
District of Columbia	870,247	24,290	845,957	7.3	3,235	90	3,145	2.86	99.65	4.09	142.56
Virginia	86,548,545	13,002,810	73,545,735	22.7	516	78	438	0.65	3.69	1.29	7.29
West Virginia	44,768,979	8,160,860	36,608,119	18.0	482	88	394	0.77	3.44	1.48	6.66
North Carolina	89,309,638	10,108,890	79,200,748	33.9	398	45	353	0.44	3.48	1.21	9.51
South Carolina	68,266,912	5,736,550	62,530,362	40.7	439	37	402	0.41	4.47	0.99	10.83
Georgia	104,304,476	12,158,800	92,145,676	40.3	464	54	410	0.46	3.49	1.15	8.68
Florida	18,809,104	2,118,630	16,190,474	30.0	449	52	397	0.49	3.71	1.40	10.71
North Central division	2,360,011,670	568,622,050	1,791,389,620	15.6	1,074	259	815	1.79	5.64	2.56	8.06
Ohio	257,065,826	56,245,050	200,820,776	16.8	929	203	726	2.30	8.20	2.92	10.44
Indiana	204,450,196	48,469,400	155,980,796	15.9	921	218	703	2.24	7.21	2.91	9.35
Illinois	345,649,611	81,897,180	263,752,431	13.2	1,309	310	999	2.50	8.04	2.96	9.52
Michigan	146,547,681	36,761,400	109,786,281	15.9	721	181	540	2.09	6.25	3.12	9.30
Wisconsin	157,445,713	41,583,750	115,861,963	14.3	927	245	682	2.09	5.83	3.70	10.30
Minnesota	161,217,304	33,257,480	127,959,824	16.2	1,042	215	827	1.27	4.87	1.80	6.94
Iowa	365,411,528	102,023,040	263,388,488	14.4	1,598	446	1,152	2.95	7.62	3.41	8.81
Missouri	219,296,970	57,952,360	161,344,610	15.6	770	204	566	1.70	4.75	2.53	7.05
North Dakota	64,252,494	10,288,390	53,964,104	21.1	1,417	227	1,190	0.66	3.47	1.07	5.60
South Dakota	66,082,419	13,377,220	52,705,199	17.7	1,256	254	1,002	0.70	2.76	1.19	4.67
Nebraska	162,696,386	38,025,530	124,670,856	16.7	1,339	313	1,026	1.27	4.17	2.06	6.76
Kansas	209,895,542	48,741,250	161,154,292	18.6	1,213	282	931	1.17	3.87	1.95	6.44

TABLE CXIX.—TOTAL AND AVERAGE VALUES OF FARM PRODUCTS OF 1899, WITH PERCENTAGES, BY STATES AND TERRITORIES—Continued.

STATES AND TERRITORIES.	VALUE OF PRODUCTS.			Per cent not fed, to value of farm property.	AVERAGE VALUE PER FARM.			AVERAGE VALUE PER ACRE.		AVERAGE VALUE PER ACRE OF IMPROVED LAND.	
	Total.	Fed to live stock.	Not fed to live stock.		Total.	Fed to live stock.	Not fed to live stock.	Products fed.	Products not fed.	Products fed.	Products not fed.
South Central division	$888,572,699	$124,525,261	$764,047,438	27.1	536	75	461	0.48	2.96	1.56	9.55
Kentucky	$123,266,785	$21,128,530	$102,138,255	21.7	$525	$90	$435	$0.96	$4.65	$1.54	$7.43
Tennessee	106,166,440	18,430,310	87,736,130	25.7	473	82	391	0.91	4.31	1.80	8.56
Alabama	91,387,409	10,095,690	81,291,719	45.3	409	45	364	0.49	3.93	1.17	9.39
Mississippi	102,492,283	11,748,625	90,743,658	44.4	464	53	411	0.64	4.97	1.55	11.95
Louisiana	72,667,302	6,528,470	66,138,832	33.3	627	56	571	0.59	5.98	1.40	14.17
Texas	239,823,244	30,476,810	209,346,434	21.8	681	87	594	0.24	1.66	1.56	10.69
Oklahoma	45,447,744	8,109,946	37,337,798	20.1	727	130	597	0.52	2.38	1.47	6.77
Indian Territory	27,672,002	4,434,010	23,237,992	25.2	608	97	511	0.61	3.20	1.45	7.59
Arkansas	79,649,490	13,572,870	66,076,620	36.4	446	76	370	0.82	3.97	1.95	9.50
Western division	336,646,343	47,897,585	288,748,758	16.8	1,386	197	1,189	0.51	3.08	1.76	10.63
Montana	28,616,957	5,074,730	23,542,227	20.0	2,140	379	1,761	0.43	1.99	2.92	13.56
Wyoming	11,907,415	1,954,180	9,953,235	14.8	1,954	321	1,633	0.24	1.23	2.47	12.56
Colorado	33,048,576	6,182,830	26,865,746	16.7	1,338	250	1,088	0.65	2.84	2.72	11.81
New Mexico	10,155,215	1,037,450	9,117,765	17.0	825	84	741	0.20	1.78	3.17	27.89
Arizona	6,997,097	817,700	6,179,397	20.6	1,205	141	1,064	0.42	3.19	3.21	24.28
Utah	16,502,051	2,959,390	13,542,661	18.0	851	153	698	0.72	3.29	2.87	13.12
Nevada	6,758,337	1,573,170	5,185,167	18.1	3,094	720	2,374	0.61	2.02	2.75	9.05
Idaho	18,051,625	3,405,804	14,645,821	21.8	1,033	195	838	1.06	4.57	2.41	10.36
Washington	34,827,495	5,209,040	29,618,455	20.6	1,049	157	892	0.61	3.48	1.50	8.55
Oregon	38,090,969	6,194,721	31,896,248	18.5	1,063	173	890	0.62	3.17	1.86	9.58
California	131,690,606	13,488,570	118,202,036	14.8	1,815	186	1,629	0.47	4.10	1.13	9.88
Alaska	8,048	430	7,618	48.6	671	36	635	2.70	47.91	2.70	47.91
Hawaii	22,040,731	.....	22,040,731	29.8	9,697	.....	9,697	.....	8.45	.....	74.83

VALUE OF ALL FARM PRODUCTS BY STATES AND TERRITORIES.

Nine states reported farm products for 1899 exceeding $200,000,000 in value. They were: Iowa, $365,411,528; Illinois, $345,649,611; Ohio, $257,065,826; New York, $245,270,600; Texas, $239,823,244; Missouri, $219,296,970; Kansas, $209,895,542; Pennsylvania, $207,895,600; and Indiana, $204,450,196. As showing the magnitude of the agricultural operations in these states, attention is called to the fact that the sum of these nine values represents almost one-half of the value of the total products reported by all the states of the country; and if Nebraska, the tenth state in rank, be included, the sum would exceed one-half of the total.

The ten states and territories with the greatest reported average value of products per farm were: Hawaii, $9,697; District of Columbia, $3,235; Nevada, $3,094; Montana, $2,140; Wyoming, $1,954; California, $1,815; Iowa, $1,598; North Dakota, $1,417; Nebraska, $1,339; and Colorado, $1,338. The high average for Hawaii reflects the large operations of the great sugar plantations and those of the large cattle ranches. In the District of Columbia are included the reports of a few very extensive florists' establishments, and a number of large dairies. The small farms were too few to reduce the general average. The high averages for Nevada, Wyoming, Montana, and Colorado mark the influence of the range in adding to the product of the reported farm acreage. In value of products derived exclusively from farm lands, Iowa takes the lead.

The average of these values per farm for the United States was $826. Not including Hawaii, it was greatest in the Western states, which use the public domain, being there $1,386; next in the North Central, $1,074; nearly as great in the North Atlantic, $984; markedly less in the South Central, $536; and least in the South Atlantic, $484. (See Plate No. 8 in connection with these values.)

In reporting the value of the products that were fed to live stock in 1899, the instructions were to include only those of which mention was made on the schedule. No account was to be taken of the value of pasturage, and none of feed purchased. Some of the schedules bore evidence of the inclusion of pasturage, and some, in and near cities, plainly indicated the inclusion of feed purchased. When the value of products fed exceeded that of the crops raised on the farm which are suitable as feed for live stock, it was reduced to equal the value of such crops. The grosser errors, due to exaggerated reports of products fed, were thus eliminated; but the tabulation doubtless includes some excessive reports of products fed, owing to the improper inclusion of values of pasturage and of feed purchased. On the other hand, products of considerable value were fed of which no reports were made, and the two classes of errors partially balance one another, so that the reported value of products fed may be accepted as approximately correct.

The largest reported values of products fed were as follows: Iowa, $102,023,040; Illinois, $81,897,180; New York, $63,429,180; Missouri, $57,952,360; Pennsylvania, $57,043,770; and Ohio, $56,245,050. These are the only states reporting over $50,000,000. The average

value per farm, of products fed, for the United States was $170. It generally increased as the regions of low winter temperature were approached, being largest in the North Central and North Atlantic states, $259 for the former and $254 for the latter. For the Western division it was $197; for the South Central, $75; and for the South Atlantic, $65. In Hawaii it was practically nothing, since the only animals there fed by hand were on the large sugar plantations, which purchased great quantities of feed, but raised practically none. Of the individual states, Nevada reported the greatest average value fed, $720. This included alfalfa and other crops used in feeding dairy cows and in fattening sheep and cattle. Iowa ranked second, with $446 per farm, chiefly corn and hay fed to cattle and swine; Montana ranked third, with $379 per farm, chiefly hay and alfalfa fed to cattle; and Vermont ranked fourth, $350, mainly corn and hay fed to horses and dairy cows.

The gross farm income, the amount obtained by deducting the value of products fed from that of all products, aggregated $3,764,177,706. The nine states with reported incomes exceeding $150,000,000 were Illinois, $263,752,431; Iowa, $263,388,488; Texas, $209,346,434; Ohio, $200,820,776; New York, $181,841,420; Missouri, $161,344,610; Kansas, $161,154,292; Indiana, $155,980,796; and Pennsylvania, $150,851,830. The average gross income per farm was $9,697 for Hawaii; $1,189 for the Western division; $815 for the North Central; $730 for the North Atlantic; $656 for the country as a whole; $461 for the South Central division; and $419 for the South Atlantic states.

In addition to giving the total and average values per farm of all products and of those fed and not fed, table CXIX presents the average value of those products per acre of farm land and also per acre of improved land. For all farm land, the average gross income per acre was $4.47. In the District of Columbia it was $99.65. This land is all urban or suburban, and the high average indicates intensive cultivation and reflects also the high value of the products of greenhouses connected with florists' establishments. High values elsewhere, except in Alaska and Hawaii, are due, in a less degree, to similar causes. The leading states and territories were as follows: Alaska, $47.91; New Jersey, $12.34; Rhode Island, $11.78; Massachusetts, $10.81; Connecticut, $9.56; Hawaii, $8.45; Ohio, $8.20; Illinois, $8.04; and New York, $8.03.

Quite different results are obtained when the average is per acre of improved land, the greatest change being in the sections making use of the range, as New Mexico and Arizona, or in sections such as Hawaii, where large areas of useless land are included with fertile tracts in large plantations. The average gross income per acre of improved land was $9.07 for the United States, $12.70 for the North Atlantic division, $10.63 for the Western, $9.55 for the South Central, $8.75 for the South Atlantic, and $8.06 for the North Central. These averages, when compared with the others, explain the apparently poor agricultural reports of the South. A relatively small area of the land is in a good state of cultivation, the land actually cultivated bringing about the same return per acre as that in other sections of the country. The low average for the North Central division is explained by the fact that the ratio of farm land improved is much greater in this than in any other division, and by the further fact that an exceptionally large proportion of the cultivated acreage is devoted to hay and cereals, crops which yield comparatively low returns per acre. (See Plate 8, showing the average value of farm products per acre.)

One of the most suggestive columns of figures found in table CXIX is that showing the ratio of the value of the products not fed to live stock to the value of all farm property, or the ratio of gross income returned by farming operations to the fixed capital of agriculture. For the United States this ratio was 18.3 per cent. It was largest in Alaska, Hawaii, and the Southern states, and smallest in the Northern states. In the South Atlantic states it was 27.8 per cent; in the South Central, 27.1 per cent; in the North Atlantic and Western, 16.8 per cent; and in the North Central, 15.6 per cent. Land values have advanced, relatively, more in the North than in the South, and a greater portion of the value of products in the North represents the income from the land and a less portion that from human labor, than in the South. An average gross farm income of $3.93 per acre in Alabama represents 45.3 per cent of the value per acre of all farm property. In Mississippi an income of $4.97 per acre is equivalent to 44.4 per cent of the value per acre of all farm property, while in Iowa an income of $7.62 per acre represents only 14.4 per cent of the value of farm property, and in Illinois, an income of $8.04, only 13.2 per cent.

These percentages do not necessarily signify that agricultural operations in one section are less profitable than in another. That can be determined only after considering the labor required in the production of crops, the expenditures for fertilizers, and other incidental expenses of operation. Some of these will be shown in the tables and in the discussion of the statistics of agricultural labor.

PRODUCTS OF FARMS OF SPECIFIED GROUPS.

Table CXX presents the principal facts of the preceding table for groups of farms classified by area, principal source of income, amount of income, tenure, and race of farmer.

TABLE CXX.—TOTAL AND AVERAGE VALUES OF PRODUCTS OF 1899, WITH PERCENTAGES, FOR FARMS IN SPECIFIED GROUPS, CLASSIFIED BY AREA, PRINCIPAL SOURCE OF INCOME, VALUE OF PRODUCTS OF 1899 NOT FED TO LIVE STOCK, TENURE, AND BY RACE OF FARMER.

A.—FARMS CLASSIFIED BY AREA IN ACRES.

GROUPS OF FARMS.	VALUE OF PRODUCTS.			Per cent not fed, to value of farm property.	AVERAGE VALUE PER FARM.			AVERAGE VALUE PER ACRE.		AVERAGE VALUE PER ACRE OF IMPROVED LAND.	
	Total.	Fed to live stock.	Not fed to live stock.		Total.	Fed to live stock.	Not fed to live stock.	Products fed.	Products not fed.	Products fed.	Products not fed.
All farms	$4,739,118,752	$974,941,046	$3,764,177,706	18.3	$826	$170	$656	$1.16	$4.47	$2.35	$9.07
Under 3	25,124,290	312,090	24,812,200	27.8	600	8	592	3.93	312.07	4.48	356.55
3 and under 10	49,955,241	3,929,107	46,026,134	18.4	220	17	203	2.80	32.82	3.10	36.34
10 and under 20	108,522,423	12,716,320	95,806,103	22.3	267	31	236	2.23	16.78	2.49	18.74
20 and under 50	483,257,976	75,057,660	408,200,316	25.4	384	60	324	1.81	9.83	2.27	12.37
50 and under 100	867,941,223	180,983,450	686,957,773	20.1	635	132	503	1.84	6.97	2.69	10.20
100 and under 175	1,329,324,768	303,623,255	1,025,696,513	17.9	935	214	721	1.58	5.32	2.56	8.66
175 and under 260	676,141,540	159,707,385	516,434,155	16.7	1,380	326	1,054	1.55	5.00	2.58	8.17
260 and under 500	664,560,473	152,585,313	511,975,160	16.3	1,758	404	1,354	1.18	3.95	2.11	7.08
500 and under 1,000	246,175,635	50,064,556	196,111,079	16.3	2,401	488	1,913	0.74	2.89	1.70	6.65
1,000 and over	288,115,183	35,956,910	252,158,273	16.1	6,094	760	5,334	0.18	1.26	1.46	10.26

B.—FARMS CLASSIFIED BY PRINCIPAL SOURCE OF INCOME.

Hay and grain	1,240,978,449	237,780,438	1,003,198,011	15.7	940	180	760	1.13	4.77	1.62	6.84
Vegetables	118,255,243	14,583,656	103,671,587	19.0	759	94	665	1.44	10.21	2.77	19.66
Fruits	81,994,100	6,841,300	75,152,800	17.1	998	83	915	1.11	12.22	2.00	21.99
Live stock	1,654,135,912	421,290,090	1,232,845,822	16.4	1,057	269	788	1.19	3.47	3.13	9.15
Dairy produce	384,953,680	103,639,771	281,313,909	16.6	1,077	290	787	2.39	6.50	4.58	12.44
Tobacco	74,212,350	8,871,600	65,340,750	30.3	698	83	615	0.93	6.82	1.58	11.61
Cotton	517,538,518	56,425,460	461,113,058	41.6	483	53	430	0.63	5.15	1.24	10.12
Rice	7,819,805	189,710	7,630,095	42.8	1,368	33	1,335	0.17	7.02	0.41	16.49
Sugar	40,804,284	1,754,330	39,049,954	26.0	5,556	239	5,317	0.66	14.63	1.70	37.88
Flowers and plants	18,505,881	83,359	18,422,522	35.1	3,005	14	2,991	1.95	431.83	2.40	530.85
Nursery products	10,279,135	192,999	10,086,136	52.7	5,066	95	4,971	1.16	60.84	1.40	73.37
Taro	187,310	.....	187,310	33.3	425	.....	425	.....	9.90	.....	62.86
Coffee	290,850	.....	290,850	15.0	568	.....	568	.....	4.14	.....	20.59
Miscellaneous	589,163,235	123,288,333	465,874,902	19.5	556	116	440	1.09	4.12	2.50	9.46

C.—FARMS CLASSIFIED BY VALUE OF PRODUCTS OF 1899 NOT FED TO LIVE STOCK.

$0	1,092,715	1,092,715	.....	.....	20	20	.....	0.07	.....	0.61	.....
$1 and under $50	7,622,443	2,734,853	4,887,590	3.9	45	16	29	0.26	0.47	0.90	1.61
$50 and under $100	30,168,705	7,970,699	22,198,006	8.9	99	26	73	0.45	1.24	1.31	3.63
$100 and under $250	282,521,919	62,722,148	219,799,771	16.2	226	50	176	0.74	2.60	1.72	6.04
$250 and under $500	743,117,717	159,140,242	583,977,475	19.4	464	99	365	1.05	3.84	2.06	7.57
$500 and under $1,000	1,246,846,830	281,830,282	965,016,548	18.0	904	204	700	1.42	4.87	2.43	8.34
$1,000 and under $2,500	1,537,759,286	334,488,968	1,203,270,318	17.6	1,854	404	1,451	1.72	6.17	2.68	9.64
$2,500 and over	889,989,137	124,961,139	765,027,998	22.1	5,775	811	4,964	0.75	4.56	2.52	15.40

D.—FARMS CLASSIFIED BY TENURE.

Owners	2,563,612,541	565,945,741	1,997,666,800	18.1	814	180	634	1.34	4.73	2.62	9.25
Part owners	558,614,991	117,763,559	440,851,432	17.8	1,237	261	976	0.94	3.53	2.08	7.76
Owners and tenants	56,652,375	13,542,666	43,109,709	17.3	1,063	254	809	1.48	4.71	2.49	7.92
Managers	204,039,381	25,847,460	178,191,921	15.8	3,446	437	3,009	0.29	1.99	2.31	15.94
Cash tenants	526,964,803	94,907,126	432,057,677	19.1	700	126	574	1.23	5.58	2.23	10.15
Share tenants	829,234,661	156,934,494	672,300,167	19.9	651	123	528	1.33	5.71	1.90	8.12

E.—FARMS CLASSIFIED BY RACE OF FARMER.

White	4,471,019,160	947,625,024	3,523,394,136	17.7	900	191	709	1.19	4.41	2.43	9.02
Negro	255,751,145	25,843,443	229,907,702	46.0	342	34	308	0.68	6.01	1.11	9.84
Indian	7,394,573	1,400,003	5,994,570	15.7	371	70	301	0.41	1.75	1.60	6.86
Chinese	4,284,537	70,254	4,214,283	38.4	2,326	38	2,288	0.60	35.88	1.01	60.50
Japanese	306,137	2,322	303,815	30.9	537	4	533	0.11	14.35	0.36	46.78
Hawaiian[1]	363,200	.....	363,200	15.0	743	.....	743	.....	0.75	.....	14.03

[1] Including part Hawaiians and 1 South Sea Islander.

Of farms classified by area, the group containing 100 to 175 acres—the typical homestead of the West—reports the greatest total value of farm products, and the greatest gross farm income. The averages form more or less regular series, presenting most, if not all, of the characteristics noted for value of farm property in the discussion of preceding tables.

The lowest average value of products per farm and the lowest average gross farm income are found in the group of farms with 3 and under 10 acres. For products fed, the lowest average is for farms with less than 3 acres. From the low figures for these groups the averages per farm rise in regular series to the largest farms. The farms of less than 3 acres have very large incomes, reflecting the inclusion of florists' establishments and city dairies and the use of the range in con-

nection with farms of that reported area. The income from the most common group—that of farms with 100 to 175 acres—was $721; that of farms with from 3 to 10 acres was $203, and that of farms of over 1,000 acres was $5,334.

The average value per acre and the per cent of gross income to all farm property form series which are the reverse of the average income per farm. They are largest for farms of smallest area and, with the exception of the average per acre of improved land for farms of 1,000 acres and over, they are smallest for farms of greatest area. The gross income of the smallest farms was equal to 27.8 per cent of the value of the farm property, while that of farms containing 1,000 acres was only 16.1 per cent. The statement made in the discussion of the varying percentages for the states, that the comparative profits in agriculture are not necessarily shown thereby, must be repeated for these percentages.

The average income per acre of all farm land ranged from $312.07 for farms of less than 3 acres to $1.26 for those of over 1,000 acres, the product of a farm varying with the labor employed, and other expenditures, more than with the area of land.

The average value per acre of improved land was greatest for farms of less than 3 acres and smallest for those with areas of 500 and less than 1,000 acres. It was greater for farms of 1,000 acres and over than for the five groups immediately preceding. This was due to the smaller relative improved acreage in these five groups, the unimproved land being extensively utilized for grazing live stock.

Of farms classified by their principal source of income, live-stock and hay and grain farms report the largest total values of products and also the largest gross incomes. The farms producing the staples of the South, such as cotton, tobacco, and rice, show a larger per cent of income on investment than those of the North, upon which hay and grain, and live stock are the staples. Such farms as florists' establishments and nurseries, also report a very large per cent of income. Sugar farms report the largest average income per farm, $5,317; nurseries the next, $4,971; and florists' establishments the third largest, $2,991. Rice farms had an average income of $1,335; fruit farms, $915; live-stock farms, $788; dairy farms, $787; and cotton farms, $430.

The average per acre varied greatly for these farms, being highest for florists' establishments, which use small areas of land, but have large expenditures for labor, fuel, and maintenance of plants. For their total acreage the average income per acre was $431.83, and for the improved land, $530.85. Nurseries reported an average of $60.84 per acre of all land, and $73.37 per acre of improved land; sugar farms, $14.63 per acre of all land, and $37.83 for the improved land. These averages were much higher in Hawaii than in Louisiana. The lowest average per acre of improved land was for hay and grain farms.

The figures for farms classified by amount of farm income, show variations which follow naturally from this mode of grouping. The averages per farm and per acre, as well as the income upon farm property, all form series with the lowest averages for the farms with lowest reported incomes, and the highest for the group of farms with largest incomes. The only exceptions are those due to the causes operating in the case of farms with over 1,000 acres, to which attention has been called. More than half of the entire value of products from all farms is reported by farms with incomes of from $500 to $2,500.

For farms classified by tenure, the figures showing the per cent of income upon value of property are in some respects noteworthy. The percentages are greatest for tenant-operated farms, and least for managed farms. The facts here presented were anticipated in the discussion of table LXXVI, which gave the per cent of improved land in farms of various tenures. The tenant-operated farms have comparatively large areas of improved land, and hence secure incomes which, relative to total farm values, are high. An additional factor influencing the figures to some extent is the following: A large proportion of the tenant farms are in the South, where land has a comparatively low valuation, consequently the income per acre for these farms is relatively high. This feature of Southern agriculture is shown more clearly for tenant farms than for those of owners in the figures for farms classified by tenure, given in table CXX. The smaller per cent for managed farms is due to a number of causes. In the Eastern states managed farms are largely the agricultural land of public institutions, or farms of wealthy proprietors who use them as much for pleasure as for profit. In the West they are cattle ranches, from which, it is believed, a less complete statement has been secured of the sales of animals than of the property on hand.

From the above discussion of table CXX, it is seen that the average value of products per farm varies with the different areas and tenures of the farms. The average per acre reflects the location of the greater number of managed farms on the cheap and less productive land of the West, a greater relative area of improved land in the farms of tenants than in those of owners, and the least in managed farms.

White farmers reported about 94 per cent of the value of all farm products; negro farmers, the greatest per cent of gross income upon value of farm property; Chinese farmers, the greatest average value per farm, per acre, and per acre of improved land; and Indian farmers, the lowest average product per farm and per acre of improved land. The Chinese had an average gross income per farm of $2,288; Hawaiians, $743; whites, $709; Japanese, $533; negroes, $308; and Indians, $301.

ADDITIONS TO FARM WEALTH.

The value of the crops and animal products of a given year or decade, including the value of the animals brought to maturity and sold or slaughtered, does not represent all the material results of labor on farms; neither does it include all the intrinsic additions to the wealth of the nation that accrue directly from such labor. A portion of the time and energy of every farmer and of every farm laborer is utilized in making additions to the value of farm property, or at least in keeping that property from deteriorating in value. Buildings and fences are repaired and new ones constructed; fruit trees and vines are planted and cared for until they attain bearing ages; on the frontier, forests are cleared, prairies broken, and other work incidental to opening new farms is performed. In some sections drains are made for carrying off surplus water, and in others ditches and canals are constructed at great cost to furnish water for irrigation. Then the losses that are incidental to agriculture have to be made good. Farm animals die by disease or accident, or are killed by dogs and wolves, while work animals and dairy cows become useless by reason of age, and must be replaced by younger ones. These losses and changes call for the generation and growth of young animals, requiring labor and care on the part of the farmer and his assistants.

The foregoing are a few among many applications of the labor of farmers and their employees the results of which are not included in the value of farm products of 1899 as given in this report, although they all add to the wealth of the nation. The census of 1870 included in its report of the total value of farm products of 1869, as estimated by the farmers, the value of all additions and betterments to stock, in fencing or in improvements of any description, so far as the same were due to farm labor. Such additions are about the only ones among those above referred to that can be approximately estimated for the country as a whole. This can be done for a given decade by deducting the value of all farm property at the beginning from that at the close, and for any given year the additions would not vary greatly from the average annual increase, or one-tenth of the total increase for the decade.

The additions to all forms of farm property in the United States from June 1, 1890, to June 1, 1900, amounted to $4,431,734,149. This would indicate an average yearly addition of $443,173,415. If this average be included with the $3,764,177,706, the reported value of the products of 1899 not fed to live stock, there is obtained a total of $4,207,351,121, which may be said to represent the additions made by farm labor to the wealth of the nation in a single year. This amount may be used in estimating, in an approximate way, the relative productive power of labor in the various states of the nation.

The figures given above, and all other figures of this report relating to the value of farm products, must be taken with great limitations. Attention has already been called to the fact that the value of the products of 1899 was greater, in all probability, than that shown by the reported total, which consequently fails to show the productive power of labor on farms. In this respect, the statistics of agriculture are the very reverse of those of manufactures. In manufactures, there is a complete exhibit of the value of products, including the value of all machinery constructed by factories for use in their own or in other establishments, and practically all expenditures for renewing or adding to the plants. The fact that the expenditures of factories for the objects last named, as well as the extent of their losses of various kinds, can not be definitely ascertained renders it impossible to determine the profits of manufactures from their statistics, and causes most of the comparisons made between the industries of agriculture and manufactures to be worse than useless.

FARM LABOR.

EXPENDITURES FOR LABOR IN 1899.

The total and average expenditures for labor on farms in 1899, including the value of the board furnished, are given for farms variously classified in Tables 11 to 17. A summary of such information, by states and territories, is presented in table CXXI.

TABLE CXXI.—TOTAL AND AVERAGE EXPENDITURES, FOR LABOR ON FARMS IN 1899, WITH PERCENTAGES, BY STATES AND TERRITORIES.

STATES AND TERRITORIES.	Total.	AVERAGE.		PER CENT OF VALUE.	
		Per farm.	Per acre.	All products.	Products not fed.
The United States	$365,305,921	$64	$0.43	7.7	9.7
North Atlantic division	71,197,870	105	1.09	10.7	14.4
Maine	2,667,260	45	0.42	7.2	9.8
New Hampshire	2,304,520	79	0.64	10.5	14.5
Vermont	3,133,140	95	0.66	9.3	14.2
Massachusetts	7,487,280	199	2.38	17.7	22.0
Rhode Island	1,082,360	188	2.27	16.3	19.2
Connecticut	4,103,420	152	1.77	14.5	18.6
New York	27,102,130	120	1.20	11.0	14.9
New Jersey	6,720,030	194	2.37	15.4	19.2
Pennsylvania	16,647,730	74	0.86	8.0	11.0
South Atlantic division	37,086,040	39	0.36	8.0	9.2
Delaware	1,075,960	111	1.01	11.6	14.5
Maryland	5,715,520	124	1.11	13.0	16.3
District of Columbia	197,420	734	28.26	22.7	23.3
Virginia	7,790,720	46	0.39	9.0	10.6
West Virginia	2,041,560	22	0.19	4.6	5.6
North Carolina	5,444,950	24	0.24	6.1	6.9
South Carolina	6,107,100	39	0.44	8.9	9.8
Georgia	7,244,520	32	0.27	6.9	7.9
Florida	1,468,290	36	0.34	8.0	9.1
North Central division	143,320,980	65	0.45	6.1	8.0
Ohio	14,602,600	52	0.59	5.6	7.2
Indiana	9,685,540	44	0.45	4.7	6.2
Illinois	22,182,550	84	0.68	6.4	8.4
Michigan	10,717,220	53	0.61	7.3	9.8
Wisconsin	10,468,610	62	0.53	6.6	9.0
Minnesota	16,657,820	108	0.63	10.3	13.0
Iowa	16,375,670	72	0.47	4.5	6.2
Missouri	9,803,610	34	0.29	4.5	6.1
North Dakota	9,207,220	203	0.59	14.3	17.1
South Dakota	5,528,070	105	0.29	8.4	10.5
Nebraska	7,399,160	61	0.25	4.5	5.9
Kansas	10,792,910	62	0.26	5.1	6.7
South Central division	49,446,641	30	0.19	5.6	6.5
Kentucky	6,618,330	28	0.30	5.4	6.5
Tennessee	4,730,370	21	0.23	4.5	5.4
Alabama	4,314,460	19	0.21	4.7	5.3
Mississippi	3,917,256	18	0.21	3.8	4.3
Louisiana	10,692,710	92	0.97	14.7	16.2
Texas	12,331,905	35	0.10	5.2	5.9
Oklahoma	2,359,650	38	0.15	5.2	6.3
Indian Territory	1,315,870	29	0.18	4.8	5.7
Arkansas	3,171,090	18	0.19	4.0	4.8
Western division	56,340,399	232	0.60	16.7	19.5
Montana	5,077,340	380	0.43	17.7	21.6
Wyoming	2,615,230	429	0.32	22.0	26.3
Colorado	4,100,905	166	0.43	12.4	15.3
New Mexico	1,951,110	158	0.38	19.2	21.4
Arizona	1,152,670	198	0.60	16.5	18.7
Utah	1,837,900	95	0.45	11.1	13.6
Nevada	1,386,660	635	0.54	20.5	26.7
Idaho	2,250,450	129	0.70	12.5	15.4
Washington	5,280,190	159	0.62	15.2	17.8
Oregon	4,842,884	135	0.48	12.7	15.2
California	25,845,120	356	0.90	19.6	21.9
Alaska	825	69	5.19	10.3	10.8
Hawaii	7,913,166	3,481	3.03	35.9	35.9

The above table shows not only the total and average expenditures for labor, but also the percentages of the total value of farm products. A study of the figures of this table in connection with those of the tables giving the average size of farms in different states and territories, brings out the fact that farm area and character of product are the most potent factors in determining the expenditures for labor. Of the two factors the influence of area is the more easily traced.

The average area of farms was greater in Hawaii and in the Western division than in the other geographic divisions, as were also the average expenditures per farm and per acre of farm land, and the per cent of the value of farm products represented by the expenditures for labor. These averages and percentages reflect the influence of factors other than area, which can best be considered by comparison with table CXXII, which gives for farms classified by area, principal source of income, and by other characteristics, the information given in the preceding table for states and territories.

TABLE CXXII.—TOTAL AND AVERAGE EXPENDITURES FOR LABOR ON FARMS IN 1899, WITH PERCENTAGES, IN SPECIFIED GROUPS CLASSIFIED BY AREA, PRINCIPAL SOURCE OF INCOME, VALUE OF PRODUCTS OF 1899 NOT FED TO LIVE STOCK, TENURE, AND RACE OF FARMER.

A.—FARMS CLASSIFIED BY AREA IN ACRES.

GROUPS OF FARMS.	Total.	AVERAGE.		PER CENT OF VALUE.	
		Per farm.	Per acre.	All products.	Products not fed.
All farms	$365,305,921	$64	$0.43	7.7	9.7
Under 3	3,203,980	77	40.30	12.8	12.9
3 and under 10	4,143,616	18	2.95	8.3	9.0
10 and under 20	6,379,390	16	1.12	5.9	6.7
20 and under 50	22,766,505	18	0.55	4.7	5.6
50 and under 100	44,996,740	33	0.46	5.2	6.6
100 and under 175	85,381,476	60	0.45	6.5	8.4
175 and under 260	53,330,190	109	0.52	7.9	10.3
260 and under 500	62,593,884	166	0.48	9.4	12.2
500 and under 1,000	31,949,080	312	0.47	13.0	16.3
1,000 and over	50,061,150	1,059	0.25	17.4	19.9

B.—FARMS CLASSIFIED BY PRINCIPAL SOURCE OF INCOME.

Hay and grain	$100,096,520	$76	$0.47	8.1	10.0
Vegetables	16,499,892	106	1.62	14.0	15.9
Fruits	15,120,290	184	2.46	18.4	20.1
Live stock	101,544,790	65	0.29	6.1	8.2
Dairy produce	37,427,580	105	0.86	9.7	13.3
Tobacco	5,423,852	51	0.57	7.3	8.3
Cotton	27,043,126	25	0.30	5.2	5.9
Rice	1,707,350	299	1.57	21.8	22.4
Sugar	14,574,356	1,985	5.46	35.7	37.3
Flowers and plants	4,155,979	675	97.42	22.5	22.6
Nursery products	2,305,270	1,136	13.91	22.4	22.9
Taro	2,302,390	51	1.18	12.0	12.0
Coffee	184,140	360	2.62	63.8	63.3
Miscellaneous	39,200,386	37	0.35	6.7	8.4

C.—FARMS CLASSIFIED BY VALUE OF PRODUCTS OF 1899 NOT FED TO LIVE STOCK.

$0	$1,278,960	$24	$0.08	117.0	.....
$1 and under $50	666,240	4	0.06	8.7	13.6
$50 and under $100	1,347,800	4	0.08	4.5	6.1
$100 and under $250	9,097,235	7	0.11	3.2	4.1
$250 and under $500	28,735,008	18	0.19	3.9	4.9
$500 and under $1,000	71,801,309	52	0.36	5.8	7.4
$1,000 and under $2,500	131,245,787	158	0.67	8.5	10.9
$2,500 and over	121,133,582	786	0.72	13.6	15.8

TABLE CXXII.—TOTAL AND AVERAGE EXPENDITURES FOR LABOR ON FARMS IN 1899, WITH PERCENTAGES, IN SPECIFIED GROUPS CLASSIFIED BY AREA, PRINCIPAL SOURCE OF INCOME, VALUE OF PRODUCTS OF 1899 NOT FED TO LIVE STOCK, TENURE, AND RACE OF FARMER—Continued.

D.—FARMS CLASSIFIED BY TENURE.

GROUPS OF FARMS.	Total.	AVERAGE.		PER CENT OF VALUE.	
		Per farm.	Per acre.	All products.	Products not fed.
Owners	$190,015,444	$61	$0.45	7.4	9.6
Part owners	45,283,510	100	0.36	8.1	10.3
Owners and tenants	3,242,730	61	0.35	5.7	7.5
Managers	43,315,231	732	0.48	21.2	24.3
Cash tenants	36,412,340	48	0.47	6.9	8.4
Share tenants	46,136,666	36	0.39	5.6	6.9

E.—FARMS CLASSIFIED BY RACE OF FARMER.

White	$354,665,540	$71	$0.44	7.9	10.1
Negro	8,789,792	12	0.23	3.4	3.8
Indian	375,656	10	0.11	5.1	6.3
Chinese	1,320,831	717	11.25	30.8	31.3
Japanese	91,512	161	4.32	29.9	30.1
Hawaiian	62,590	128	0.13	17.2	17.2

Of farms classified by area, those of smallest size had the largest average expenditure for labor per acre, and those of largest size, the smallest. For farms of less than 3 acres it was $40.30, and for those of 1,000 acres and over only $0.25 per acre. The ten groups do not, however, constitute an unbroken series, since the three groups with areas between 175 to 1,000 acres had averages per acre greater than the group with areas of 100 to 175 acres. These three groups may show in some degree the influence of the character of the agricultural operations in increasing the average expenditure for labor; but the low figure for the 100 to 175 acre group, including as it does the greater number of holdings under the homestead laws, probably indicates that such holdings, particularly those recently occupied, are either largely uncultivated or cultivated solely by the labor of the operator.

The average expenditure per farm was least for farms containing 10 and under 20 acres, and the per cent of the value of products represented by the expenditures for labor was least for farms containing from 20 to 50 acres. With the exception of these groups the averages per farm and the percentages increase steadily with the size of farms. The higher averages and percentages in these groups of very small area reflect the influence of vegetable, fruit, rice, and coffee farms, and of florists' establishments and nurseries, in increasing the expenditures for labor. The high average expenditures for such farms are shown most fully in the figures of section B of table CXXII, which give information concerning labor expenditures for farms classified by principal source of income. In addition to these, there were the live-stock farms operated by managers, with little or no land owned or leased but with access to unlimited areas of the public domain, and having large expenditures for the care of their herds.

The highest expenditure per acre, $97.42, was for florists' establishments. The same class of farms had a very high average expenditure per farm, representing a large per cent of the value of products. All these facts concerning such farms are reflected in the figures for farms of less than 3 acres, and also in those for the District of Columbia in the preceding table.

Sugar farms had the greatest expenditure per farm, and the highest per cent of the value of products paid out for labor. The influence of the farms of this class is shown in the preceding table in the corresponding figures for Hawaii and Louisiana.

Cotton farms had the lowest expenditure per acre and per farm, and the smallest proportion of the value of products expended for labor. These farms were chiefly cultivated by negro tenants in tracts just large enough to enable the tenant and his family to care for the crops without hiring labor. The influence of the cotton farms was very potent in giving to many states of the South Central and South Atlantic divisions, as well as to those two divisions as a whole, the low averages and percentages shown in the preceding table.

The cultivation of nursery products calls for large expenditures for labor, but the small number of farms of this class makes it difficult to trace their influence in the other groups of table CXXII or in the state figures of the preceding table.

Vegetable, fruit, rice, coffee, and taro farms all had high averages and percentages for labor, and as the acreage of all these farms was small, they were quite influential in increasing the figures for farms of small area in the first section of table CXXII, and also those for Hawaii and Alaska in the preceding table.

Hay and grain and live-stock farms had only medium averages and percentages for labor. Where those farms were small in area, the averages and percentages were small (except for the live-stock range farms already mentioned); but for larger farms of the same character the per cent rises, and for the very large hay and grain farms and live-stock farms of the Western division are found the high averages and percentages shown for those states in table CXXI.

Of farms classified by amount of income, the most surprising figures are those for farms with no income, which show very large actual and relative expenditures for labor. The expenditures for farms of this class include the money paid for labor in establishing small fruit, coffee, and kindred farms, and in planting and caring for trees before they reach bearing ages. In the same high average are reflected the labor expenditures upon homestead claims in the West in breaking prairies and establishing farms before an income can be received therefrom; also the expenditures on farms where floods, hail, and other calamities destroyed the crops of 1899 after much labor had been expended

upon them. With the exception of this group, the average expenditures per farm and per acre were lowest for farms of least income and increased steadily to those with largest income. The per cent of the value of products spent for labor was the lowest for farms with incomes of from $100 to $249 and increased to those with largest and smallest incomes. The influence of the factors giving large averages and percentages to farms with no income can be traced in the corresponding percentages for all the groups of farms with incomes less than $100.

Among the farms classified by tenure, the highest average per farm and the highest per cent of income spent for labor were for farms of managers, owing to the fact that practically all labor on such farms is hired, and to the further fact that the manager's salary was included in some cases with the expenditures for other hired labor. Tenants show smaller percentages of the value of products spent for labor than do owners, indicating that they performed the greater portion of their farm work themselves.

Of farms classified by race of farmer those of the Chinese show the highest average expenditure and per cent of expenditure for labor, the average being $717 per farm, while for white farmers it was $71 and for negroes only $12. The Chinaman's average per acre was $11.25, while the white farmer's was $0.44 and the Indian's, only $0.11. Next to the Chinese the Japanese reported the highest average and per cent, and the Indians and negroes the least.

INCOME FROM FARM LABOR.

Table CXXIII presents an interesting study of the productiveness of farm labor as measured by its approximate value, after allowing 6 per cent interest upon the value of all farm property. The table gives the reported value of the products of 1899 not fed to live stock, and one-tenth of the increase in the value of farm property from 1890 to 1900. The sum of these amounts is designated the gross farm income; but these figures are confessedly only approximate exhibits of the facts for which they are made to do service. The reasons for this were stated in the discussion concerning the relative incomes of agriculture and manufactures. The value of products not fed to live stock is obtained by summing up the incomplete reports of such products. It is assumed, however, that the omissions are balanced by the very incomplete reports of expenditures for labor on farms.

From this approximate gross income, ascertained as described, there is subtracted the interest on the value of all farm property, computed at 6 per cent, the remainder being designated the labor income for 1899. To complete the table, the number of persons 10 years of age and over employed in agriculture, and the average total income are given, and also the number of horses, mules, and asses in the several states and territories and the average number of such work animals for each person employed in agriculture, all of which facts may serve the purpose of a labor study.

TABLE CXXIII.—GROSS FARM INCOME OF 1899, INCLUDING ANNUAL ADDITIONS TO VALUE OF FARM PROPERTY, INTEREST ON VALUE OF PROPERTY, TOTAL AND AVERAGE LABOR INCOME IN 1899, AND NUMBER OF PERSONS ENGAGED IN AGRICULTURE, JUNE 1, 1900, BY STATES AND TERRITORIES.

STATES AND TERRITORIES.	GROSS FARM INCOME OF 1899, INCLUDING ADDITIONS TO VALUE OF FARM PROPERTY.			Interest on value of farm property at 6 per cent.	Labor income, 1899.	Number of persons engaged in agriculture.[1]	Average labor income, 1899.	HORSES, MULES, AND ASSES.	
	Total.	Products of 1899 not fed to live stock.	Annual increase in value of farm property.					Total number.	Number to 1,000 persons engaged in agriculture.
The United States[2]	$4,187,892,706	$3,742,129,357	$445,763,349	$1,226,394,070	$2,961,498,636	10,273,770	$288.26	21,625,800	2,105
North Atlantic division	492,478,218	494,422,084	[3]1,943,866	177,031,958	315,446,260	1,056,288	298.64	1,747,931	1,655
Maine	27,271,971	27,265,609	6,362	7,344,654	19,927,317	74,794	266.50	106,700	1,427
New Hampshire	16,482,530	15,919,078	563,452	5,150,526	11,332,004	37,622	301.21	54,990	1,462
Vermont	22,658,908	21,994,302	664,606	6,507,086	16,151,822	49,338	327.37	85,897	1,741
Massachusetts	37,530,494	34,033,564	3,496,930	10,958,802	26,571,692	65,692	404.49	75,383	1,148
Rhode Island	5,545,695	5,364,724	180,971	1,619,351	3,926,344	10,796	363.69	11,433	1,059
Connecticut	22,624,435	22,098,948	525,487	6,798,335	15,826,100	44,234	357.78	52,878	1,195
New York	174,882,738	181,841,420	[3]6,958,682	64,183,434	110,699,304	373,650	296.26	632,089	1,692
New Jersey	35,760,684	35,052,609	708,075	11,372,020	24,388,664	68,490	356.09	98,955	1,445
Pennsylvania	149,720,763	150,851,830	[3]1,131,067	63,097,750	86,623,013	331,692	261.15	620,616	1,898
South Atlantic division	415,585,040	403,521,457	12,063,583	87,241,879	328,343,161	2,015,912	162.88	1,628,500	808
Delaware	6,908,577	7,400,857	[3]492,280	2,441,859	4,466,718	18,921	236.07	34,482	1,822
Maryland	35,438,774	35,053,529	385,245	12,278,724	23,160,050	94,978	243.85	166,574	1,754
District of Columbia	1,331,494	845,957	485,537	692,123	639,371	1,479	432.30	935	632
Virginia	76,448,476	73,545,735	2,902,741	19,410,959	57,037,517	298,542	191.05	346,408	1,160
West Virginia	39,102,721	36,608,119	2,494,602	12,234,441	26,868,280	149,262	180.01	196,658	1,318
North Carolina	80,913,467	79,200,748	1,712,719	14,030,082	66,883,385	455,767	146.75	295,588	649
South Carolina	65,904,551	62,530,362	3,374,189	9,215,470	56,689,081	392,433	144.46	196,035	500
Georgia	96,058,220	92,145,676	3,912,544	13,702,478	82,355,742	518,973	158.69	335,247	646
Florida	13,478,760	16,190,474	[3]2,711,714	3,235,743	10,243,017	85,557	119.72	56,578	661
North Central division	2,090,157,732	1,791,389,620	298,768,112	690,295,191	1,399,862,541	3,480,018	402.26	10,564,807	3,036
Ohio	201,144,284	200,820,776	323,508	71,935,487	129,208,847	413,360	312.58	895,226	2,166
Indiana	166,910,164	155,980,796	10,929,368	58,716,988	108,193,176	341,629	316.70	819,440	2,399
Illinois	316,408,202	263,752,431	52,655,771	120,259,014	196,149,188	461,881	425.13	1,477,392	3,202
Michigan	114,028,029	109,786,281	4,241,748	41,421,344	72,606,685	302,978	239.64	589,570	1,946
Wisconsin	140,985,606	115,861,963	25,123,643	48,702,739	92,282,867	264,058	349.49	560,674	2,123
Minnesota	165,358,126	127,959,824	37,398,302	47,321,079	118,037,047	253,651	465.35	704,969	2,779
Iowa	336,754,785	263,388,488	73,366,297	110,060,783	226,694,052	370,957	611.11	1,450,152	3,909
Missouri	186,017,774	161,344,610	24,673,164	61,987,314	124,030,460	460,278	269.47	1,259,333	2,736
North Dakota	69,416,201	53,964,104	15,452,097	15,316,005	54,100,196	71,597	755.62	366,924	5,125
South Dakota	67,950,774	52,705,199	15,245,575	17,851,518	50,099,256	82,714	605.69	487,767	5,897
Nebraska	148,285,881	124,670,856	23,615,025	44,877,003	103,408,878	186,397	554.78	851,174	4,566
Kansas	176,897,906	161,154,292	15,743,614	51,846,017	125,051,889	271,028	461.40	1,102,186	4,067
South Central division	860,690,259	764,047,438	96,642,821	168,949,404	691,740,855	3,277,771	211.04	5,254,258	1,603
Kentucky	106,425,814	102,138,255	4,287,559	28,262,751	78,163,063	405,901	192.57	647,621	1,596
Tennessee	90,567,168	87,736,130	2,831,038	20,472,122	70,095,046	410,121	170.91	614,897	1,499
Alabama	84,597,731	81,291,719	3,306,012	10,703,993	73,893,738	512,791	143.98	346,532	676
Mississippi	94,432,915	90,743,658	3,689,257	12,253,262	82,179,653	488,216	168.33	445,343	912
Louisiana	74,947,822	66,138,832	8,808,990	11,912,214	63,035,608	291,192	216.47	339,025	1,164
Texas	253,896,328	209,346,434	44,549,894	57,748,576	196,147,752	641,791	305.63	1,793,122	2,794
Oklahoma	54,650,078	37,337,798	17,312,280	11,120,629	43,529,449	94,850	458.93	360,829	3,804
Indian Territory	32,456,153	23,237,992	9,218,161	5,530,897	26,925,256	91,915	292.94	275,819	3,001
Arkansas	68,716,250	66,076,620	2,639,630	10,884,960	57,831,290	340,994	169.60	431,070	1,264
Western division	328,981,457	288,748,758	40,232,699	102,875,638	226,105,819	443,781	509.50	2,430,304	5,476
Montana	30,479,306	23,542,227	6,937,079	7,071,589	23,407,717	27,531	850.23	332,829	12,089
Wyoming	13,667,830	9,953,235	3,714,595	4,048,645	9,619,185	13,109	733.78	137,184	10,465
Colorado	31,934,452	26,865,746	5,068,706	9,662,706	22,271,746	44,302	502.73	248,843	5,617
New Mexico	12,926,635	9,117,765	3,808,870	3,226,069	9,700,566	26,886	360.80	152,366	5,667
Arizona	8,111,135	6,179,397	1,931,738	1,799,631	6,311,504	15,742	400.93	133,765	8,497
Utah	17,422,048	13,542,661	3,879,387	4,510,508	12,911,540	29,247	441.47	118,888	4,065
Nevada	6,184,679	5,185,167	999,512	1,720,430	4,464,249	5,743	777.34	83,343	14,512
Idaho	18,787,188	14,645,821	4,141,367	4,036,272	14,750,916	26,788	550.65	172,275	6,431
Washington	33,950,013	29,618,455	4,331,558	8,642,433	25,307,580	52,823	479.10	246,835	4,673
Oregon	34,869,897	31,896,248	2,973,649	10,365,678	24,504,219	55,809	439.07	295,688	5,298
California	120,648,274	118,202,036	2,446,238	47,791,677	72,856,597	145,801	499.70	508,293	3,486

[1] Exclusive of lumbermen and wood choppers. [2] Not including Alaska and Hawaii. [3] Decrease.

The amount designated in the table as the labor income of 1899—the sum available as compensation for the labor of farmers and their employees—was $2,961,498,636. There were 10 states in each of which the labor income exceeded $100,000,000. They were, Iowa, $226,694,052; Illinois, $196,149,188; Texas, $196,147,752; Ohio, $129,208,847; Kansas, $125,051,889; Missouri, $124,030,460; Minnesota, $118,037,047; New York, $110,699,304; Indiana, $108,193,176; and Nebraska, $103,408,878.

The average income for labor for each person employed in agriculture in 1899 was, for the United States, $288.26; for the North Atlantic division, $298.64; for the South Atlantic, $162.88; for the North Central, $402.26; for the South Central, $211.04, and for the Western, $509.50. The exceptionally large number of farm children under 16 years of age in the South, and the comparatively large number of women included in the reports of the number of persons engaged in agricultural pursuits in that section, assist in reducing the averages of the South Atlantic and South Central divisions below those of the other divisions. In the discussion of the value of farm products it was pointed out that in these two Southern divisions the value of products represented a greater per cent of the value of farm property than in any other division. The figures of this table, however, demonstrate that a high per cent of value of products to value of farm property does not necessarily imply a larger income for the farmer upon investments nor a greater income for labor. On the contrary, it is associated in the South with a low remuneration for labor. The low per cent which the value of farm products in the North Central states exhibits permits of a remuneration for labor in that division more than twice that in the South Atlantic and nearly twice that in the South Central division.

One important point of difference should be mentioned. Over 20 per cent of the labor income shown in table CXXIII for the North Central states consists of additions to the value of farm property in 1899. Exclusive of this increment, the average labor income in the North Central states is very nearly the same as that in the North Atlantic. The difference in the two divisions does not exceed $20 per individual farm worker. The chief attraction which agriculture in the North Central division holds out to the average farmer, as compared with the inducements offered by agriculture in the East, is the fact that farm investments in that division are increasing in value and are sure to give him an income in addition to the return for his labor in the form of farm products. His income in 1899 from the advance in farm values was equal to 25.0 per cent of what he received in that year from the sale of products. The increment in farm values is also a very important factor in the profits which accrue to the farmers of the South Central and Western states, especially to those of Texas, Oklahoma, and Indian Territory. That increment accounts for practically all the difference shown in the table between the South Central and South Atlantic states.

The 10 states with the largest average labor income in 1899 were: Montana, $850.23; Nevada, $777.34; North Dakota, $755.62; Wyoming, $733.78; Iowa, $611.11; South Dakota, $605.69; Nebraska, $554.78; Idaho, $550.65; Colorado, $502.73; and California, $499.70. In nearly all of these states the natural increase in the value of farm property is a great factor in the farmers' prosperity, and contributes a considerable share of the income for labor that is shown in table CXXIII.

In this connection attention should be called to the fact that in the greater portion of the Western division and in many of the South Central states money commands a much higher rate of interest than 6.0 per cent. If account could be taken of the different rates which prevail in the several geographic divisions, the variations shown by the table would be greatly modified.

FARM MACHINERY, ANIMAL POWER, AND FARM INCOME.

A most important factor in the added income of the North Central and Western divisions is found in the greater use of farm machinery and of horse power in performing the agricultural work of those sections. Much has been written of the importance of farm machinery in the economics of agriculture, but the fact is too often overlooked that the machinery is valueless unless driven by some power other than human muscle. The power of steam and of falling water applied through the agency of the steam engine and the water wheel gives great effectiveness to labor in factories. The corresponding power of the farm at the present time is principally that of the horse and mule, although in California, Hawaii, and Louisiana the steam engine is used to a limited extent in plowing the land and in transporting cane from the fields to the sugarhouses. It is largely the use of the horse and the mule that enables the farmer of this country to make his labor more effective than that of the average agricultural worker in Europe and Asia, and that enables him to produce grain, transport it thousands of miles, and sell it in Europe cheaper than it can be produced there, and at the same time secure a suitable remuneration on capital.

The number of horses and mules to a thousand agricultural workers is given in table CXXIII. The largest number, 5,476, was in the Western division, where the labor income was the greatest; and the smallest, 808, was in the South Atlantic division where the labor income was least. In this latter division there was less than 1 horse or mule to a worker, while in the Western division there were over 5 to a worker. This difference is unquestionably due, in part, to the fact that in the Western states and territories, and in some states of the South Central division, horses and mules are raised for the market, and the presence of such animals, especially young colts, assists greatly in swelling the number per

thousand workers. In the Western division the presence of Indian ponies and of the many small horses used by the stock raisers, contribute to the same end. But after making due allowance for all these factors the figures of the table are most convincing evidence of the value of the horse and mule in contributing to the income of the farm.

By comparing figures for the individual states with those for the division to which they belong, many striking illustrations of this fact are found. For example, Iowa had an average labor income of $611.11 while the average for the division was $402.26, or less than two-thirds as much. But this state had 3,909 horses to 1,000 agricultural workers, while the average for the division was only 3,036. The average worker in the division had 3 horses, and in Iowa he had 4. The extra horse undoubtedly brought to the Iowa farmer a large portion of the $200 extra income through the additional machinery and other appliances which it enabled him to make use of. Let this exhibit for Iowa be compared with that for Michigan, where there are only 1,946 horses per thousand farm workers. This was 1 less for each individual than the average for the North Central division, and 2 less than in Iowa. The average labor income per farm worker was $239.64, or more than $150 less than the average for the division, and less than one-half that for Iowa.

Contrasting Ohio and North Dakota, the one with 2,166 horses per 1,000 agricultural workers and the other with 5,125, the former shows an average farm income of $312.58 and the latter of $755.62. The same general facts are exhibited by a comparison between South Dakota and Wisconsin, the former having 5,897 horses to 1,000 workers and an average farm labor income of $605.69, and the latter having 2,123 horses and an average farm labor income of $349.49.

The apparent principle brought out in the foregoing statistics of horses and average income in the North Central states finds many corroborations in the South Central and Western states. On the other hand, many exceptions appear in the North Atlantic and South Atlantic divisions, although, as a rule, the figures for those divisions are of the same general character. The exceptions generally occur in states where the nearness to cities and the development of special branches of agriculture result in exceptionally large incomes.

FARM LABOR AND HORSES ON FARMS OF SPECIFIED GROUPS.

Table CXXIV presents for farms classified by area, principal source of income, tenure, and color of farmer, some of the more important relations, mentioned in the discussion of table CXXIII, between the use of horses and mules on farms, and farm income.

TABLE CXXIV.—NUMBER OF FARMS, AND TOTAL AND AVERAGE ACREAGE, TOTAL AND AVERAGE VALUE OF PRODUCTS OF 1899 NOT FED TO LIVE STOCK, AND TOTAL AND AVERAGE NUMBER OF HORSES, MULES, AND ASSES, JUNE 1, 1900, ON FARMS CLASSIFIED BY AREA, PRINCIPAL SOURCE OF INCOME, TENURE, AND COLOR OF FARMER.

A.—FARMS CLASSIFIED BY AREA IN ACRES.

GROUPS OF FARMS.	Number of farms.	NUMBER OF ACRES IN FARMS.		VALUE OF PRODUCTS OF 1899 NOT FED TO LIVE STOCK.		NUMBER OF HORSES, MULES, AND ASSES.	
		Total.	Average per farm.	Total.	Average per farm.	Total.	Average per farm.
All farms	5,739,657	841,201,546	146.6	$3,764,177,706	$656	21,646,731	3.8
Under 3	41,882	79,508	1.9	24,812,200	592	147,192	3.5
3 and under 10	226,564	1,402,391	6.2	46,026,184	203	224,096	0.2
10 and under 20	407,012	5,708,458	14.0	95,806,103	236	499,756	1.2
20 and under 50	1,257,785	41,544,644	33.0	408,200,316	324	2,245,966	1.8
50 and under 100	1,366,167	98,600,285	72.2	686,957,778	503	3,801,400	2.8
100 and under 175	1,422,328	192,688,074	135.5	1,025,696,613	721	6,046,921	4.3
175 and under 260	490,104	103,289,564	210.8	516,434,155	1,054	2,788,802	5.7
260 and under 500	377,992	129,686,228	343.1	511,975,160	1,354	3,064,293	8.1
500 and under 1,000	102,547	67,878,349	661.9	196,111,079	1,913	1,293,263	12.6
1,000 and over	47,276	200,324,045	4,237.3	252,158,273	5,334	1,535,042	32.5

B.—FARMS CLASSIFIED BY PRINCIPAL SOURCE OF INCOME.

Hay and grain	1,319,856	210,242,783	159.3	1,003,198,011	760	6,016,450	4.6
Vegetables	155,898	10,156,679	65.1	103,671,587	665	374,319	2.4
Fruits	82,176	6,149,584	74.8	75,152,800	915	196,590	2.4
Live stock	1,564,714	355,009,476	226.9	1,232,845,822	788	8,553,032	5.5
Dairy produce	357,578	43,283,971	121.0	281,313,909	787	1,228,472	3.4
Tobacco	106,272	9,574,160	90.1	65,340,750	615	244,014	2.3
Cotton	1,071,545	89,586,680	83.6	461,113,058	430	2,277,981	2.1
Rice	5,717	1,087,668	190.3	7,630,095	1,335	22,002	3.8
Sugar	7,344	2,668,880	363.4	39,049,954	5,317	68,132	9.3
Flowers and plants	6,159	42,662	6.9	18,422,522	2,991	3,942	0.6
Nursery products	2,029	165,780	81.7	10,086,136	4,971	4,313	2.1
Taro	441	18,922	42.9	187,310	425	1,081	2.5
Coffee	512	70,218	137.1	290,850	568	1,364	2.7
Miscellaneous	1,059,416	113,144,083	106.8	465,874,902	440	2,655,039	2.5

TABLE CXXIV.—NUMBER OF FARMS, AND TOTAL AND AVERAGE ACREAGE, TOTAL AND AVERAGE VALUE OF PRODUCTS OF 1899 NOT FED TO LIVE STOCK, AND TOTAL AND AVERAGE NUMBER OF HORSES, MULES, AND ASSES, JUNE 1, 1900, ON FARMS CLASSIFIED BY AREA, PRINCIPAL SOURCE OF INCOME, TENURE, AND COLOR OF FARMER—Continued.

C.—FARMS CLASSIFIED BY TENURE.

GROUPS OF FARMS.	Number of farms.	NUMBER OF ACRES IN FARMS.		VALUE OF PRODUCTS OF 1899 NOT FED TO LIVE STOCK.		NUMBER OF HORSES, MULES, AND ASSES.	
		Total.	Average per farm.	Total.	Average per farm.	Total.	Average per farm.
Owners	3,149,344	422,354,923	134.1	$1,997,666,800	$634	12,003,262	3.8
Part owners	451,515	124,956,065	276.7	440,851,432	976	2,705,022	6.0
Owners and tenants	53,299	9,152,280	171.7	43,109,709	809	269,341	5.1
Managers	59,213	89,665,821	1,514.3	178,191,921	3,009	794,038	13.4
Cash tenants	752,920	77,360,463	102.7	432,057,677	574	2,189,346	2.9
Share tenants	1,273,366	117,711,994	92.4	672,300,167	528	3,685,722	2.9

D.—FARMS CLASSIFIED BY COLOR OF FARMER.

White	4,970,129	798,908,187	160.7	3,523,394,136	709	20,287,380	4.1
Colored	769,528	42,293,359	55.0	240,783,570	313	1,359,351	1.8

The average gross income, or value of products not fed to live stock, and the average number of horses per farm, were lowest for farms containing 3 and less than 10 acres, and, rising in a regular series, were highest for farms of 1,000 acres and over. For groups of farms containing more than 10 acres there is a certain approximate relation between the average amount of farm income and the average number of horses per farm. It is similar to the corresponding relation shown by the averages for all farms. The average gross income per farm, for all farms, was $174 for each horse, mule, or ass. It was somewhat more than this for each horse on the smaller farms and only a trifle less on the larger farms, showing that the relative amount of human labor was greater on the smaller and less on the larger farms than on farms of average size. When allowance is made for this difference, farm incomes are shown to bear a fixed and definite relation to these two factors—the size of farms and the number of horses thereon. The relation of horses to income on farms of under 3 acres illustrates the close relation in general of the use of horses to farm income, as the income per farm was about $174 per horse or mule in service.

For farms classified by principal source of income, the rule above stated is not so apparent, since it is modified by values of special products and by the greater relative use of human labor, in the case of vegetable and fruit farms. The small productive power of the horse on live-stock farms, where it is used more for purposes of locomotion than in the production of crops, is reflected in the averages of the table.

For farms classified by tenure, where these special uses of horses are lost in the general averages, there is an approximation to the same averages as were shown for farms classified by area.

Farms of owners, part owners, owners and tenants, and managers, have incomes that do not correspond with the average number of horses. The average amount of income per horse is also less in each case than that reported for the whole country. The variations in the first three tenures are doubtless due to the fact that when men have capital sufficient to own farms, they can afford more of the comforts and luxuries of life than men with less capital, who work as tenants. Many of the owners have extra horses, kept for pleasure or personal comfort and not exclusively as work animals, hence the lower average income per horse for such farms, and the higher average for farms operated by tenants. The same reasoning applies to farms operated by managers, most of which are run on business principles, and in connection with which few horses are kept for pleasure. Doubtless further study and investigation would show the influence of the same principle among farms having different sources of income.

For the farms of white farmers, the gross income was about $173 to each horse or mule kept, and for colored farmers $174, corresponding closely in each instance with the average for all farms in the United States, $174. Evidently the variations in the incomes of the two races, in the production of cereals, and in the average yield per acre cultivated (shown in Vol. II), bear some relation to the use of the horse and mule, and to the degree of assistance rendered by those animals in operating improved farm machinery.

LABOR AND HORSES ON AMERICAN AND EUROPEAN FARMS.

No intelligent person questions the fact that the manufacturing supremacy which the nation has recently assumed is due to its greater use, in proportion to product, of factory power, as measured by the horsepower of its engines and water wheels. The question of the comparative horsepower of the factory

and the farm is not presented so much as a part of a discussion of the relative supremacy of the farm or factory, as to set forth the common cause of our manufacturing and agricultural supremacy. This country is able to raise the products of the field more cheaply than the nations of Europe, because it uses the power of horses on the farm to a greater extent than they, and the superiority of the American farm in this respect is even more marked than the leadership of the American factory. This can be seen by the following statement of the number of horses in the leading European countries, according to the latest official reports. In many cases these figures comprise not merely the number of horses on farms, but the total number in the country. For the United States the number given is for horses on farms only.

COUNTRIES.	Date of report.	Number of horses.
Great Britain	1901	1,511,431
Ireland	1901	491,380
British India	1900	1,343,880
Australia	1900	1,922,522
Argentine Republic	1900	4,447,000
Austria	1899	1,711,077
Hungary	1895	2,308,457
France	1900	2,903,063
Germany	1900	4,184,099
Italy	1890	702,390
Japan	1900	1,547,160
Russia, including Siberia	1898	25,354,000
United States	1900	18,280,007

The foregoing figures do not include the mules of the United States, although they are used more extensively here than in any other country. Including with the horses, mules, and asses on farms, those not on farms, it is probable that the United States has more work animals within its borders than has the Russian empire, Siberia included, with a population exceeding that of the United States by many millions.

The horsepower on American farms, including mules, is at least 6 times that of Germany, 12 times that of Great Britain and Ireland, 8 times that of France, 30 times that of Italy, and 6 times that of Austria and Hungary combined. This difference in horsepower gives to American farm labor a wonderful advantage over other countries. The competition is such that it is affecting land values in Europe and forcing a readjustment of the industries of the world. In this respect the American farm is as important as the American factory, and American farm labor is the most important industrial force in the world.

LABOR IN AGRICULTURE AND IN MANUFACTURES.

According to the census enumeration of June 1, 1900, there were 10,438,121 persons in the United States making agriculture their principal occupation. The division of manufactures reports that in the census year which preceded that date there were employed in factories an average of 5,308,406 wage-earners; 397,730 officials, clerks, and others receiving salaries, and 709,326 proprietors and firm members receiving neither wages nor salaries, but deriving incomes from business operations, making a total of 6,415,462. This does not, however, include the total number employed, as the maximum number of wage-earners was 7,069,144, while the average, as given above, was only 5,308,406. These figures for manufactures are given in connection with those for agriculture, but, owing to many differences in the nature of the data, no detailed comparison is attempted of the relative earning capacity of the numbers continuously or intermittently engaged in the two industries.

It is almost as difficult to compare the power used in agriculture and manufactures, other than that of human muscle, as it is to compare the labor expended in the two industries. Labor, in both cases, derives a great portion of its productiveness from the motor power used in driving machinery. In the factory that motor power is steam, electricity, falling water, and kindred forces, while on the farm it is largely the power of horses and mules. In the census year a total of 11,300,081 horsepower was utilized in factories, while the number of horses and mules 2 years old and over on farms June 1, 1900, was 18,276,551. The capacity of a horsepower in factories for continous work is greater than that of the average horse or mule on the farm, but, owing to the lack of detailed information concerning the idle time of horses and of factory motors, and the rating of factory motors at their maximum capacity and the use of only a portion of the same, no comparative statement is here presented concerning the probable assistance received by the factory and the farm from the use of machinery driven by mechanical or animal power.

FERTILIZERS.

GENERAL USE OF FERTILIZERS.

Natural fertilizers have been known to the farmers of all countries since the earliest times. The use of artificial means to renew the fertility of the soil dates back to the time when the first nomadic tribes were compelled by the scarcity of new pastures and virgin ground to settle permanently, and has followed the march of civilization more or less closely as the exhaustion of the soil has been more or less rapid. So long as land was held in common by its tillers, there was no incentive to the individual farmer to improve it, but, as soon as private ownership came to be recognized, the farmer found not only that all improvements of the land would benefit him directly, but that failure to make them meant gradual but certain impoverishment.

Almost all savage peoples have been familiar with the use of natural manures, but the civilized peoples of antiquity even anticipated the modern chemical compounds known as commercial fertilizers, and also remarked upon the advantages of crop rotation. The Peruvians have used guano since the beginning of their recorded history, and the Chinese, with characteristic economy, have long recognized the value of all kinds of excrements as fertilizers. It is only during the last century, however, and largely as a result of Liebig's researches, that the chemistry of the soil has been comprehensively studied, and fertilizers skillfully compounded to meet the needs of different soils and crops.

The farmer was once regarded as a miner whose prosperity depended upon the amount of fertility he could dig out of the soil each year in the form of crops. When the soil was no longer fertile, the mine was exhausted, and the farmer had to begin again on new land. This theory has been condemned by economists, and the farmer has turned gradually from the mining process to the manufacturing. Land and machinery are his factory and capital; fertility, natural and artificial, his source of power; and crops and animal products his manufactured goods. The chief aim of modern farming is to produce large crops and to preserve or increase the fertility of the soil. The means to this end are the use of fertilizers and the scientific rotation of crops.

Economic agriculture contemplates such a system of farming as will ultimately return to the soil everything taken from it by the annual harvests. The ordinary operation of the laws of nature accomplishes this to a certain extent. Animal life produces much waste matter and refuse, which must ultimately return to the earth in an elementary form. In newly settled districts, waste matter is usually thrown upon those sections of the ground where it will cause the least annoyance rather than upon those where it will be most useful, and it finds its way back to the soil and the atmosphere through processes of putrefaction and decay. This is generally an accidental process, so far as the farmer is concerned, for the average tiller of the soil does not fully appreciate the fertilizing value of waste matter and refuse, and does but little to reclaim it.

The refuse and garbage of cities is, in most cases, carried away by rivers or dumped directly into the sea, thus causing a waste of vast quantities of good fertilizing material. It is a fact that rivers and parts of the sea, rich in nitrogen, phosphoric acid, and potash, produce larger and more numerous fish than waters deficient in these three elements of life. In like manner, the silt-carrying waters enrich the alluvial plains of their deltas with the plant food drained from the land along their banks. In the realm of nature nothing is altogether lost. Nevertheless the wheat farmer in Minnesota will not always be satisfied to see the plant food of his soil washed down to fertilize the bottom of the Gulf of Mexico, and the farmer of the Western plains is obviously a loser when the blood, bones, and offal from his cattle are shipped from Omaha packing houses to enrich the cotton fields of the South.

The problem, then, for the agricultural economist is not only how to preserve and restore to each farm its own fertility, but also how to give it all the additional plant food that can be obtained from other sources.

This question is presented in a different form by each part of the country. In the Northeast, where market gardens and small farms producing miscellaneous products prevail, and in the fruit-growing regions, where rotation is impracticable, the need is for a direct application of manure, domestic or commercial. In the great cereal belt, and in the cotton lands of the South, scientific rotation of crops, combined with a judicious application of fertilizers, produces the largest yield of crops and best conserves the fertility of the soil. In the great arid region west of the ninety-seventh meridian, where the lack of rainfall and drainage has prevented the leaching out of the vital elements of the soil, irrigation is, as yet, all that is needed to produce heavy yields.

The science of agriculture is not yet perfectly understood, but the tendency seems to be to preserve the tilth and fertility of the soil by studied rotation and the careful preservation and use of manures produced on the farm. That commercial fertilizers are of great value in connection with the rotation and the use of

natural manures is well understood, but the idea of raising crops year after year on chemical nutriment, secured at a high price and applied to the soil with considerable labor, is not consistent with the true aim of the farmer to reap the annual crops in the greatest abundance at the lowest possible cost, and to preserve to posterity in unimpaired richness the fertility of the soil.

The scientific farmer will carefully conserve the fertility of his farm by growing crops that exhaust it in rotation with leguminous plants that renew it, and by carefully saving and spreading all animal manures. He may even increase the amount of available plant food, but the manufacturer is doing more; he is turning to account substances which would ordinarily be wasted, and making fertilizers of them to enrich soil which would not be cropped without their use, thus increasing greatly the productivity of well-cultivated land, and bringing up to the general average of fertility such bare and waste spots as frequently occur even on the richest farms.

The United States Department of Agriculture, the various state agricultural organizations, and farmers' institutes have so educated the farmers of the country that intensive farming is now practiced to a much greater extent than formerly, and the careful and scientific use of fertilizers is everywhere becoming more general. These facts, combined with the gradual exhaustion of the soil in the older parts of the country, have created an increasing demand for commercial fertilizers.

The oldest and most widely known commercial fertilizer is guano. This is a deposit of the excrements and dead bodies of sea birds, found on rocks and cliffs of the seacoast and on islands where sea fowl congregate to breed. It is only in the rainless regions near the equator, where the absence of moisture prevents decay and the leaching out of the nitrogen, the most valuable element of this manure, that guano exists in such a form and in such abundance as to be valuable. Peru, for many years, furnished great quantities, but the partial exhaustion of the deposits and the growing demand have, of late years, rendered the supply insufficient.

The statistics of the Treasury Department show that the first importation of guano into the United States was in 1848. During that year 1,000 tons were imported. The next year the imports were over twenty times that amount, and from that time until the Civil War the quantity imported increased annually. During the war, the importation of guano was interrupted, but in 1866–67 the trade revived and large quantities were brought to this country every year until 1880. Since that time the amount imported has grown less each year, owing to the failure of the supply.

In 1849, three tons of guano were reëxported from this country, and from that time until 1866, large quantities were shipped to various ports in Europe and the West Indies. After that date the export trade declined rapidly and is no longer of importance.

As the guano traffic declined, the quantity of other commercial fertilizers imported and exported increased each year. As early as 1879 the exports of such fertilizers were valued at $1,240,582, and the imports for the same year at $344,769. These shipments were mainly of phosphate rock, and at the present time, also, the shipments, both export and import, consist chiefly of the various kinds of phosphate rock and prepared superphosphates.

Up to 1889 the imports and exports of prepared manures, exclusive of guano, were nearly equal, although the quantities received and shipped each year varied greatly. Since that time, owing largely to the opening of new phosphate mines in Florida and Tennessee, the exports have increased very rapidly, and in 1899 they were valued at $6,983,178, while the imports in that year were $1,448,409.

Guano and all prepared fertilizers have always been admitted free of duty, but many of the crude chemicals imported for use in the preparation of high-grade complete fertilizers are dutiable. These chemicals are used for many other purposes besides compounding manures, and only a part of the quantity imported is converted into fertilizer. Thus it is impossible to estimate with absolute accuracy the extent of the foreign commerce in manures. The figures used in this connection are those of the prepared commercial fertilizers reported as such by the customs officials. Of the numerous brands of fertilizers on the market to-day, many are called "guano" which contain none of the natural article.

There are two general classes into which all fertilizers may be divided: Complete manures, containing the three principal elements of fertility, phosphoric acid, potash, and nitrogen; and incomplete manures, composed of one or two of these ingredients only. The latter are sold to farmers who wish to mix their own fertilizers, or to meet the requirements of special soils or crops. In these statistics, lime is considered a fertilizer, though, strictly speaking, it is only a mechanical agent to improve the texture or temper of the soil.

The chief sources of phosphoric acid are the various phosphates of lime, which occur in several forms of

more or less availability for fertilizing purposes. True bone phosphate is made from animal bones. Some few deposits of fossil bones have been utilized, and the buffalo bones that strewed the Western plains twenty years ago have been industriously collected and made into manures. To-day the commerce in bones extends to all parts of the world and includes every kind of bone, from the bleached skeletons of other ages to the green bones of the slaughterhouse. Bones are prepared for use as manure by grinding, steaming, burning, or dissolving with acid. Each preparation is of peculiar value under certain conditions of soil and crop, or in combination with other elements.

In Florida, South Carolina, and Tennessee, there are extensive deposits of phosphatic lime rock. These deposits are of two kinds, "river" and "land" phosphate. The river rock is found in the beds of streams in the form of pebbles, which may be obtained by dredging; the land rock lies in strata of solid rock or in drifts of pebbles and coarse gravel, and must be mined. The only difference between the land and river phosphate is in the form in which they occur, their composition being almost identical.

The rock is sometimes pulverized and sold in the crude state under the name of raw phosphate, or "floats," and is sometimes finely ground and mixed with sulphuric acid. This produces commercial acid phosphate, or superphosphate, which has a high content of phosphoric acid in a soluble state, more quickly available than the less soluble form found in "floats." Both forms are used for direct application to the soil and for mixing complete fertilizers, but for the latter purpose the superphosphate is most used. Odorless phosphate is made from the slag produced in the manufacture of steel from phosphatic iron ore. It is used to some extent in this country, but is more popular on the continent of Europe.

Potash is obtained from ashes of several kinds, and is most commonly derived from this source by the farmer who makes his own fertilizers on the farm. Germany supplies most of the potash used for fertilizers, and the several crude potash salts, carnallit, sylvanit, kainit, and muriate and sulphate of potash are imported in large quantities. Like the phosphates, these salts are applied to the land separately, or are mixed with other elements to form complete fertilizers. They are usually sold by the unit of potash per ton, and all are of nearly equal money value as fertilizers, although the more highly concentrated forms are preferred when transportation charges enter into the cost. In Florida many farmers consider muriate of potash best adapted to the needs of the orange orchards. It can not, however, be used in growing tobacco because the chlorine contained in it reduces the combustibility of the leaf.

Of the three elements of fertility, nitrogen is obtained from the greatest number of sources. Organic matter, especially if it be decomposed, has generally a sufficient content of soluble nitrogen to render it valuable to the agriculturist. Many substances rich in nitrogen contain also a considerable per cent of available phosphoric acid, or potash, or both, there being, in fact, few nitrogenous substances which do not contain one or both of these elements.

Cottonseed meal and hulls are much used as manure by the Southern farmers, and form, it will be seen, a fairly complete fertilizer. An average of several analyses of cottonseed shows, approximately:

	Per cent.
Nitrogen	7
Phosphoric acid	3
Potash	2

The following are a few of the most common organic sources of nitrogen: Seeds from which oil has been extracted, fish pomace and scrap, dried blood, blood and bone tankage, meat tankage, sewage tankage, dried meat (azotine), wool waste, old woolen rags, leather, horn and hoof meal, hair, skim milk, and curds. These substances differ greatly in the amount and availability of the nitrogen contained, but it is impracticable to enter into a discussion of their relative merits.

Sulphate of ammonia and nitrate of soda are used in great quantities by manufacturers in mixing complete fertilizers, and by farmers for direct application to the soil. Sulphate of ammonia is a by-product of the manufacture of coke, gas, etc. Nitrate of soda, or Chile saltpeter, is imported largely from South America. It is impossible to give a complete list of the materials used in the manufacture of commercial fertilizers, or to give analyses of the numerous brands on the market which have been designed to meet the needs of every kind of crop and soil.

CROP ROTATION.

Rotation of crops may be defined as a studied system of varying the products of the soil from year to year in such a way as to increase the yield of crops and the ultimate fertility of the land. The system bears an intimate relation to the use of fertilizers, and should be carefully considered in that connection. A good rotation accomplishes three things:

1. Increased fertility of the soil at less expense than by the use of fertilizers alone.

2. Insurance of the farmer against total loss from a failure of the leading staple, a common occurrence under the "one-crop" system.

3. The eradication of many noxious weeds by growing hostile crops, or crops that may be harvested before the weed seeds are ripe.

In a broad sense, the term rotation of crops comprehends more than the growing of different crops each year. Land may be allowed to lie fallow, or may be used for pasture for certain periods, or may even be allowed to grow up to woodland for a number of years, and still, by its increased fertility, be more profitable to the farmer than if one-cropped and liberally fertilized.

The system followed is usually the growing of a crop of leguminous plants immediately before the crop which draws most heavily on the nitrogen in the soil. Such plants possess the peculiar property of assimilating nitrogen from the atmosphere and storing it in the soil in the form most available for future crops. This property has been long observed, and advantage has been taken of it for centuries, but it is only in modern times that the researches of microscopists and chemists have explained how leguminous plants appropriate nitrogen by means of parasitic nodules formed by bacteria in their roots. Since this discovery, chemists and other specialists have worked out very exact and complete rotations; and the Agricultural Department, through its experiment stations, and the various farmers' associations throughout the country, have encouraged the farmers to adopt modern methods of "scientific farming." This awakening of agricultural science has had a marked effect on the use of fertilizers. By growing leguminous plants, with a moderate use of fertilizer, in a good rotation with other crops, the fertility of the land may be preserved and even increased. Each crop of the series gives a larger yield than if grown alone, and the nitrogen-collecting plants save the purchase of much of this costly ingredient in the form of commercial fertilizers.

There are two general methods of crop rotation. The simpler method, and the one best known to the average farmer, is to raise a number of crops and to change each year the location of these crops on the farm. If the farmer keeps stock, he changes his pasture land annually, to give all parts of the farm the benefit of the excrement.

The more scientific method, and the one most common among the large producers, is to put all the land under cultivation into one crop at the same time, thus changing the entire output of the farm yearly, following whatever rotation is best suited to the soil, climate, and crops grown.

When stock is kept on the farm, the value of the leguminous crop is increased. Cow pease, clover, and alfalfa may be grown to advantage, and produce a high grade of hay, which can be returned to the land as manure, in the most available form to feed next year's crop.

The census enumerators made no inquiries concerning the extent to which rotation is practiced, and information on this subject from other sources is meager. It is possible, from the experimental station reports, to find what rotations are successful in different sections of the country, but there are no accurate accounts of the extent to which they are followed.

In some states it is noticeable that, in the last decade, the increase in the amount expended for fertilizers is not commensurate with the increased value of crops grown. Where formerly the farmer spent a large sum for fertilizers he now spends less, and frequently raises a heavier crop. In these cases, the farmers have learned to use leguminous plants in rotation and obtain larger yields in proportion to the outlay for fertilizers. This condition frequently exists in the cotton belt. In some parts of Alabama, South Carolina, and Georgia, the cumulative power of complete fertilizers has so enriched the soil in potash and phosphoric acid, that only nitrogen and a little lime are necessary to give good crops. In these districts, the farmers use leguminous plants in rotation with the staple crops, and their only expenditure for fertilizers is for an occasional dressing of lime.

INCREASE IN FARM EXPENDITURES FOR FERTILIZERS.

The census of 1860 was the first to report in detail the quantity and value of commercial fertilizers manufactured in the United States, but inquiries on the subject were not made from farmers until twenty years later. The agricultural schedules of the Tenth Census, and also those of the Eleventh and Twelfth, called for the amount expended for fertilizers. This question was intended to furnish a complete statement of the amount actually expended for fertilizers, including regular brands of manufactured manures, raw materials used for home mixing, and barnyard manures, refuse, sewage, etc., when actually purchased.

The question was misleading, to some extent, to both the farmer and the enumerator, and in each decade there have been some reports made of the value of manure which was produced on the farm where it was used, and for which the farmer expended nothing. Again, some enumerators reported under this head the cost of hauling and spreading manure on the land—an item which should have been included in the amount

paid as wages for farm labor. Care has been taken to arrive at the true meaning of the enumerator's report and to publish only such figures as are reasonably accurate.

Table cxxv gives, by geographic divisions, the amount expended for fertilizers, together with the per cent of increase by decades from 1880 to 1900.

TABLE CXXV.—EXPENDITURES FOR FERTILIZERS, WITH PER CENT OF INCREASE OF SUCH EXPENDITURES, BY GEOGRAPHIC DIVISIONS: SUMMARY 1880 TO 1900.

GEOGRAPHIC DIVISIONS.	TOTAL EXPENDITURES.			PER CENT OF INCREASE.	
	1900	1890	1880	1890 to 1900	1880 to 1890
The United States	$54,783,757	$38,469,598	$28,586,397	42.4	34.6
North Atlantic	15,641,995	11,449,069	9,638,808	36.6	18.8
South Atlantic	22,732,670	18,759,130	14,832,926	21.2	26.5
North Central	7,273,695	3,067,515	1,928,823	137.1	59.0
South Central	6,711,824	4,952,018	2,036,741	35.5	143.1
Western	1,070,726	241,862	149,099	342.7	62.2
Alaska and Hawaii[1]	1,352,847	.....	.....	.....	.....

[1] No report prior to 1900.

The census reports furnish a complete statement of the manufacture of commercial fertilizers in the United States since 1859. In that year the value of the entire output of the factories was $891,344; in 1869, $5,815,118; and in 1879, $23,650,795. In the latter year the amount expended by farmers was $28,586,397. The imports of fertilizers, exclusive of chemicals used in manufactured manures, were worth $981,437, while the value of exported fertilizers was $1,245,282. By adding the value of imports to the value of the domestic product, and deducting the value of the exports, the country's supply is found to have been worth $23,046,881. The amount expended by farmers was in excess of this sum by $5,539,516. This excess may be accounted for, in part, by taxes, freight, middlemen's profits, interest on notes for fertilizers bought on credit—a general practice in the cotton belt under the crop-lien laws—and miscellaneous expenses, such as license fees, bags, cost of analyses, etc. Some domestic manures, too, were bought for cash from neighboring farmers or liverymen, and were properly included in the report of the enumerators.

In 1889 the value of the manufactured product was reported as $39,180,844. The imports and exports were worth, respectively, $1,613,662 and $1,013,154. The value deduced for the country's supply is $39,772,937. The amount expended by farmers was $38,469,598.

In 1899 the manufactured product was worth $44,657,385, the imports and exports were valued at $1,492,019 and $6,983,186, respectively. This gives a domestic supply for that year of $39,166,218. The amount spent by farmers was $54,783,757, a sum $15,617,539 in excess of the value of the supply. This difference is made up partly of the usual incidents to trade—middlemen's profits, freight rates, etc.—and partly of the amount expended for manures not reported under the head of manufactured fertilizers, such as cottonseed meal and husks, large quantities of which are used in the South, and stable manure. In this same class of fertilizers are included street sweepings of cities, which, according to a bulletin issued by the Department of Agriculture, approximate 3,000,000 tons annually. These are generally sold to farmers and truck gardeners at a small figure, or in some cases given to anyone who will haul them away.

GEOGRAPHIC DISTRIBUTION OF EXPENDITURES FOR FERTILIZERS.

Table cxxvi gives the total and average expenditures for fertilizers in 1899, with percentages, by states and territories.

TABLE CXXVI.—TOTAL AND AVERAGE EXPENDITURES FOR FERTILIZERS IN 1899, WITH PERCENTAGES, BY STATES AND TERRITORIES.

STATES AND TERRITORIES.	EXPENDITURES.			Per cent of total value of products.
	Total.	Average.		
		Per farm.	Per acre.	
The United States	$54,783,757	$10	$0.07	1.2
North Atlantic division	15,641,995	23	0.24	2.3
Maine	819,680	14	0.13	2.2
New Hampshire	367,980	13	0.10	1.7
Vermont	447,065	14	0.09	1.3
Massachusetts	1,320,600	35	0.42	3.1
Rhode Island	264,140	48	0.58	4.2
Connecticut	1,078,240	40	0.47	3.8
New York	4,493,050	20	0.20	1.8
New Jersey	2,165,320	62	0.76	5.0
Pennsylvania	4,685,920	21	0.24	2.3
South Atlantic division	22,732,670	24	0.22	4.9
Delaware	539,040	56	0.51	5.8
Maryland	2,618,890	57	0.51	6.0
District of Columbia	22,600	84	2.66	2.6
Virginia	3,681,790	22	0.18	4.3
West Virginia	405,270	4	0.04	0.9
North Carolina	4,479,080	20	0.20	5.0
South Carolina	4,494,410	29	0.32	6.6
Georgia	5,738,520	26	0.22	5.5
Florida	753,120	18	0.17	4.1
North Central division	7,273,695	3	0.02	0.3
Ohio	2,695,470	10	0.11	1.0
Indiana	1,553,710	7	0.07	0.8
Illinois	830,660	3	0.03	0.2
Michigan	492,360	2	0.03	0.3
Wisconsin	294,320	2	0.01	0.2
Minnesota	251,120	2	0.01	0.2

TABLE CXXVI.—TOTAL AND AVERAGE EXPENDITURES FOR FERTILIZERS IN 1899, WITH PERCENTAGES, BY STATES AND TERRITORIES—Continued.

STATES AND TERRITORIES.	EXPENDITURES.			Per cent of total value of products.
	Total.	Average.		
		Per farm.	Per acre.	
North Central division—Continued.				
Iowa	$337,190	1	0.01	0.1
Missouri	370,630	1	0.01	0.2
North Dakota	13,855	(1)	(2)	(3)
South Dakota	12,940	(1)	(2)	(3)
Nebraska	153,080	1	0.01	0.1
Kansas	268,360	2	0.01	0.1
South Central division	6,711,824	4	0.03	0.8
Kentucky	908,250	4	0.04	0.7
Tennessee	898,070	4	0.04	0.8
Alabama	2,599,290	12	0.13	2.8
Mississippi	932,098	4	0.05	0.9
Louisiana	1,076,890	9	0.10	1.5
Texas	124,716	(1)	(2)	0.1
Oklahoma	.....	.....	.....	.....
Indian Territory	.....	.....	.....	.....
Arkansas	172,510	1	0.01	0.2
Western division	1,070,726	4	0.01	0.3
Montana	3,940	(1)	(2)	(3)
Wyoming	12,700	2	(2)	0.1
Colorado	23,225	1	(2)	0.1
New Mexico	2,880	(1)	(2)	(3)
Arizona	2,921	1	(2)	(3)
Utah	14,300	1	(2)	0.1
Nevada	.....	.....	.....	.....
Idaho	17,150	1	0.01	0.1
Washington	29,165	1	(2)	0.1
Oregon	27,395	1	(2)	0.1
California	937,050	13	0.03	0.7
Alaska	.....	.....	.....	.....
Hawaii	1,352,847	595	0.52	6.1

[1] Less than $1.
[2] Less than 1 cent.
[3] Less than one-tenth of 1 per cent.

It is to be noted that of the total expenditure of $54,783,757 for fertilizers in 1899, $38,374,665, or 70.0 per cent, was spent in the North Atlantic and South Atlantic states lying within 300 miles of the Atlantic seaboard, and that the four states, Ohio, Indiana, Alabama, and Louisiana, expended nearly one-half of the remainder. The territory reporting this large relative expenditure for fertilizers is that which was first settled and extends hardly beyond the earlier boundaries of the original 13 states of the Union. In the central part of the country, consisting of the states situated between the eighty-third and one hundred and fourth meridian, about $14,000,000 was expended for fertilizers. These states comprise most of the wheat and corn belt and the newer cotton lands of the South. The portion of the United States west of the one hundred and fourth meridian bought only a little over $1,000,000 worth of fertilizers in 1899, and of this amount, over $900,000 worth was purchased in California.

There are several conditions which operate to produce this peculiar geographic distribution of the use of commercial fertilizers. These are: the original character of the soil, the length of time and the method by which the soil has been tilled, the kind of crops raised, the natural manurial resources of the country, and the cost of transportation.

The Eastern states, where the use of commercial fertilizers is most extensive, have been the longest cultivated and produce crops of relatively high market value per acre. Fertilizers are necessary to secure the largest yields, and the value of the crops justifies the use of high-grade manures in large quantities. The seaboard is, moreover, most easily accessible for the delivery of commercial fertilizers. In the Central and Southern states, where the land was originally of great fertility, and where the crops are of a comparatively low money value per acre, expensive manures can not be used with profit in large quantities. The cost of transportation to this section is also higher.

In the great arid region the soil is new and of marvelous depth and richness, requiring only the application of water to produce phenomenal yields. The irrigation water in most cases carries a large quantity of silt, containing much soluble plant food. Experiments in Arizona indicate that 36 miners' inches of water from the Colorado River used in irrigating an acre of land would deposit silt containing elements of plant food which, if supplied by high-grade fertilizers purchased at the prices prevailing at that place, would cost about $9. The deposits of the Salt River are only a little less valuable.

Furthermore, the cost of transportation of commercial fertilizers is here at a maximum. In California, however, easily accessible by sea from sources of commercial supply, the high value per acre of general market crops renders profitable the use of much expensive manure, even in combination with irrigation.

EXPENDITURES FOR FERTILIZERS ON FARMS OF SPECIFIED GROUPS.

Table CXXVII gives the total and average expenditures for fertilizers in 1899, with percentages for specified groups of farms classified by area, by principal source of income, and by other characteristics.

TABLE CXXVII.—TOTAL AND AVERAGE EXPENDITURES FOR FERTILIZERS IN 1899, WITH PERCENTAGES FOR FARMS IN SPECIFIED GROUPS.

GROUPS OF FARMS.	EXPENDITURES.			Per cent of total value of products.
	Total.	Average.		
		Per farm.	Per acre.	
All farms	$54,783,757	$10	$0.07	1.2
A.—FARMS CLASSIFIED BY AREA IN ACRES.				
Under 3	187,267	4	2.36	0.7
3 and under 10	836,775	4	0.60	1.7
10 and under 20	1,864,080	5	0.33	1.7
20 and under 50	8,178,666	7	0.20	1.7
50 and under 100	11,865,819	9	0.12	1.4
100 and under 175	14,099,982	10	0.07	1.1
175 and under 260	6,858,465	14	0.07	1.0
260 and under 500	5,482,056	15	0.04	0.8
500 and under 1,000	2,294,538	22	0.03	0.9
1,000 and over	3,116,109	66	0.02	1.1
B.—FARMS CLASSIFIED BY PRINCIPAL SOURCE OF INCOME.				
Hay and grain	$8,004,461	$6	$0.04	0.6
Vegetables	5,950,905	38	0.59	5.0
Fruits	1,844,890	22	0.30	2.3
Live stock	7,687,047	5	0.02	0.5
Dairy produce	4,100,218	11	0.09	1.1
Tobacco	2,861,120	27	0.30	3.9
Cotton	12,312,408	11	0.14	2.4
Rice	71,670	13	0.07	0.9
Sugar	2,059,202	280	0.77	5.0
Flowers and plants	316,038	51	7.41	1.7
Nursery products	139,512	69	0.84	1.4
Taro	2,390	5	0.13	1.3
Coffee	5,760	11	0.08	2.0
Miscellaneous	9,428,136	9	0.08	1.6
C.—FARMS CLASSIFIED BY VALUE OF PRODUCTS OF 1899 NOT FED TO LIVE STOCK.				
$0	$88,983	$2	$0.01	8.1
$1 and under $50	130,050	1	0.01	1.7
$50 and under $100	465,300	2	0.03	1.5
$100 and under $250	4,317,032	3	0.05	1.5
$250 and under $500	10,892,434	7	0.07	1.5
$500 and under $1,000	14,307,749	10	0.07	1.1
$1,000 and under $2,500	14,813,253	18	0.08	1.0
$2,500 and over	9,768,951	63	0.06	1.1
D.—GROUPS OF FARMS CLASSIFIED BY SPECIFIED TENURES.				
Owners	$30,005,877	$10	$0.07	1.2
Part owners	3,744,401	8	0.03	0.7
Owners and tenants	585,820	11	0.06	1.0
Managers	3,738,922	63	0.04	1.3
Cash tenants	6,838,300	9	0.09	1.3
Share tenants	9,870,437	8	0.08	1.2
E.—GROUPS OF FARMS CLASSIFIED BY RACE OF FARMER.				
White	$49,099,939	$10	$0.06	1.1
Negro	5,614,844	8	0.15	2.2
Indian	23,273	1	0.01	0.3
Chinese	34,083	19	0.29	0.8
Japanese	7,798	14	0.37	2.5
Hawaiian	3,820	8	0.01	1.1

Farms classified by area reported an expenditure per farm that increased with the number of acres. The smallest farms had, however, the highest average expenditures per acre and the largest farms the lowest. The expenditures of the smaller farms, except those of less than 3 acres, also formed the highest percentage of gross farm incomes.

Of the farms classified by principal source of income, sugar farms reported expenditures greatly in excess of those of other farms. The average for all farms was only $10, while that for sugar farms was $280. The next largest expenditure was $69, for nurseries; florists' establishments expended $51; vegetable farms, $38; tobacco farms, $27; fruit farms, $22; rice farms, $13; and coffee, cotton, and dairy farms, $11. The lowest averages reported were $6 for hay and grain farms and $5 for live-stock and taro farms.

The average expenditure per acre for all farms was $0.07. That for florists' establishments was $7.41; for nurseries, $0.84; sugar farms, $0.77; vegetable farms, $0.59; fruit and tobacco farms, $0.30; cotton farms, $0.14; hay and grain farms, $0.04; and live-stock farms, $0.02. The greatest expenditure as compared with the total value of the products was on sugar and vegetable farms, where it constituted 5.0 per cent. Tobacco farms had the next largest per cent, 3.9, and cotton farms next, 2.4. The least were for hay and grain and live-stock farms, 0.6 and 0.5 per cent, respectively.

Among the farms classified by amount of gross income, the greatest expenditure per farm was reported by those with the largest income, and the smallest by those with incomes from $1 to $49. The average per acre follows the same general rule, but presents an exception for the group of farms with the largest income which included so many live-stock farms that the average was thereby reduced. The per cent of expenditure for fertilizers was largest for farms of smallest income, and least for those of greatest income.

The average expenditure per acre was greatest for farms of cash and share tenants and least for farms of part owners and managers. The average per farm was greatest for farms of managers and least for those of part owners and share tenants. The per cent of the value of products expended for fertilizers was largest for farms of managers and least for those of part owners.

The Chinese and Japanese reported the greatest average expenditure per farm and per acre, and the Indians, the least; the Japanese, the greatest per cent of expenditure to the value of product, and the Indians, the least. The Chinese seem to have secured the best results for their expenditure, since with the largest expenditure per acre they have next to the smallest per cent to value of product. The large per cent of expenditure for the Japanese was doubtless due to the large relative number of their farms, which had not reached a great degree of production in 1899.

DOMESTIC ANIMALS.

METHODS OF ENUMERATION, CLASSIFICATION, AND NUMBER.

The enumeration of domestic animals by the methods already described is believed to be the most complete ever undertaken by any census.

Previous census reports had been especially deficient with respect to the number of domestic animals on ranges, and in barns and inclosures elsewhere, and the statistics of live stock had been too general to be of practical value either to breeder or shipper. Values were stated only in the aggregate, and no statements of the total or average value of any class of animals or live stock were furnished. It was due mainly to requests from the live-stock associations of the country, that steps were taken to remedy these defects and to secure statistics of greater practical value.

With this end in view, a new classification of domestic animals was adopted for the census of 1900, and provision was made for the collection of definite statistics of the numbers of all neat cattle, horses, mules, asses, sheep, swine, and goats on farms, ranges, and elsewhere, as well as the value of each class of these animals on farms and ranges. Under the new classification neat cattle are grouped by age and sex, in accordance with their present and prospective relations to the dairy industry and to the supply of meat products. Horses and mules are classified by age, and sheep by age and sex. Asses of all ages and both sexes are included in one group, as in preceding census reports. Swine are classified in the same manner. Goats were enumerated for the first time, and those of all ages and both sexes are included in one group.

In preparing the schedules used in the Twelfth Census of agriculture, and especially the inquiries thereon relating to domestic animals, it was sought to secure enumeration of all animals in the country, and at the same time to avoid duplication. It is believed that these objects have been accomplished to a greater degree than by any preceding census. The use of the individual schedule for farms assisted materially in eliminating duplications made by enumerators and special agents. The new classification adopted aided greatly in securing a complete enumeration of animals, and in obviating the uncertainties of live-stock statistics of previous census reports.

The general statistics of domestic animals appear in Tables 26 to 42, inclusive. A summary of the number, value, and average value of the twenty different groups into which the animals are divided by the new classification, is found in table CXXVIII, for farms and ranges.

TABLE CXXVIII.—NUMBER AND VALUE OF SPECIFIED CLASSES OF DOMESTIC ANIMALS ON FARMS AND RANGES IN THE UNITED STATES, JUNE 1, 1900, WITH PERCENTAGES.

DOMESTIC ANIMALS.	Age in years.	Number.	Value.	Average value.	Per cent of total value.
Total		215,822,238	$2,981,722,945	$13.82	100.0
Calves	Under 1	15,333,099	137,375,655	8.96	4.6
Steers	1 and under 2	6,968,188	130,492,503	18.73	4.4
Steers	2 and under 3	5,203,325	151,508,747	29.12	5.1
Steers	3 and over	3,086,029	109,598,584	35.51	3.7
Bulls	1 and over	1,315,963	45,391,948	34.49	1.5
Heifers	1 and under 2	7,183,916	121,626,697	16.93	4.1
Cows kept for milk	2 and over	17,139,674	508,745,131	29.68	17.0
Cows and heifers not kept for milk	do	11,592,142	271,760,449	23.44	9.1
Colts	Under 1	1,315,208	25,900,109	19.69	0.9
Horses	1 and under 2	1,447,747	48,335,128	33.39	1.6
Horses	2 and over	15,517,052	822,720,106	53.02	27.6
Mule colts	Under 1	231,697	6,203,286	26.77	0.2
Mules	1 and under 2	279,925	11,775,191	42.07	0.4
Mules	2 and over	2,759,499	178,834,083	64.81	6.0
Asses and burros	All ages	95,603	5,824,539	60.92	0.2
Lambs	Under 1	21,668,238	42,027,828	1.94	1.4
Sheep (ewes)	1 and over	31,919,298	101,376,142	3.18	3.4
Sheep (rams and wethers)	do	8,018,275	26,933,032	3.36	0.9
Swine	All ages	62,876,108	232,027,707	3.69	7.8
Goats	do	1,871,252	3,266,080	1.75	0.1

The total value of all animals on farms and ranges, June 1, 1900, was $2,981,722,945, of which value that of neat cattle constituted 49.5 per cent; horses, 30.1 per cent; mules, 6.6 per cent; asses and burros, 0.2 per cent; sheep, 5.7 per cent; swine, 7.8 per cent; and goats, 0.1 per cent. Of the value of neat cattle, over one-half is represented by the two classes of cows, those "kept for milk" and those kept for breeding and designated in table CXXVIII as "not kept for milk." The combined value of the three kinds of work animals most common—horses, mules, and asses—represents 36.9 per cent of that of all animals on farms and ranges.

DOMESTIC ANIMALS NOT ON FARMS OR RANGES.

Tables 37, 38, and 40 give in detail, by state and county, the number of all classes of enumerated domestic animals not on farms or ranges, but no attempt was made to secure statements of their value. It is probable that the average value exceeded that of the same classes of animals on farms and ranges, but, for the purpose of obtaining a more or less definite estimate of the total value, it is assumed that the averages were the same. This gives a value of $214,658,873, or 6.7 per cent of the aggregate value of all live stock, for the domestic animals not on farms and ranges, the value of animals on farms and ranges constituting 93.3 per cent.

Table CXXIX presents in detail the estimates of the value of the animals not on farms and ranges, and a statement of the total value of all live stock in the country.

TABLE CXXIX.—NUMBER AND ESTIMATED VALUE OF SPECIFIED DOMESTIC ANIMALS, NOT ON FARMS OR RANGES, AND TOTAL VALUE OF ALL SUCH ANIMALS IN THE UNITED STATES, JUNE 1, 1900.

DOMESTIC ANIMALS.	Age in years.	NOT ON FARMS OR RANGES.		Value of all animals.	Per cent of value of all animals.
		Number.	Estimated value.		
Total		6,870,826	$214,058,873	$3,196,381,818	100.0
Calves	Under 1	262,146	2,348,828	139,724,483	4.4
Steers	1 and under 2.	55,543	1,040,320	131,532,823	4.1
Steers	2 and under 3.	51,005	1,485,266	152,994,013	4.8
Steers	3 and over	105,802	3,757,029	113,355,613	3.5
Bulls	1 and over	13,609	469,374	45,861,322	1.4
Heifers	1 and under 2.	79,517	1,346,223	122,972,920	3.9
Cows kept for milk.	2 and over	973,033	28,879,619	537,024,750	16.8
Cows and heifers not kept for milk.	do	75,767	1,775,978	273,536,427	8.6
Colts	Under 1	33,090	651,542	26,551,651	0.8
Horses	1 and under 2.	30,402	1,015,123	49,350,251	1.5
Horses	2 and over	2,873,389	152,347,085	975,067,191	30.5
Mule colts	Under 1	3,156	84,486	6,287,772	0.2
Mules	1 and under 2.	4,328	182,079	11,957,270	0.4
Mules	2 and over	166,424	10,785,939	189,620,022	5.9
Asses and burros.	All ages	15,847	965,399	6,789,938	0.2
Lambs	Under 1	51,701	100,300	42,128,128	1.3
Sheep (ewes)	1 and over	139,622	443,998	101,820,140	3.2
Sheep (rams and wethers).	do	39,978	134,326	27,067,358	0.9
Swine	All ages	1,818,114	6,708,841	238,786,548	7.5
Goats	do	78,353	137,118	3,403,198	0.1

DOMESTIC ANIMALS ON MILITARY RESERVATIONS.

Through the courtesy of the Secretary of War, an enumeration of the domestic animals on all military reservations in the United States was secured.

On June 1, 1900, the total number of horses on military reservations was 5,652, of which 4,446 were cavalry horses; 870, artillery horses; and 336, draft horses. In addition, there were 2,635 draft mules and 355 pack mules, a total of 2,990 mules. The above figures are not included in any of the totals given in this report.

DOMESTIC ANIMALS ON FARMS OF SPECIFIED AREAS.

Tables 2, 4, 15, and 32 present the most important facts relating to farms classified by area. A summary of a few of these facts relating to domestic animals is given in table CXXX.

TABLE CXXX.—TOTAL AND AVERAGE VALUE OF DOMESTIC ANIMALS ON FARMS OF SPECIFIED AREAS, JUNE 1, 1900, WITH THE NUMBER OF FARMS, AND OF FARMS REPORTING ANIMALS, WITH PERCENTAGES.

FARMS CLASSIFIED BY AREAS IN ACRES.	Number of farms.	Farms reporting animals.	Per cent of farms reporting animals.	Value of animals.	Average value per farm reporting.
Total	5,739,657	5,499,988	95.8	$2,981,722,945	$542
Under 3	41,882	31,173	74.4	35,842,099	1,150
3 and under 10	226,564	184,054	81.2	20,560,440	112
10 and under 20	407,012	361,958	88.9	43,554,218	120
20 and under 50	1,257,785	1,192,049	94.8	202,876,624	170
50 and under 100	1,366,167	1,326,738	97.1	422,420,445	318
100 and under 175	1,422,328	1,396,031	98.2	759,716,165	544
175 and under 260	490,104	484,889	98.9	397,362,821	819
260 and under 500	377,992	374,815	99.2	458,206,380	1,222
500 and under 1,000	102,547	101,614	99.1	212,109,752	2,087
1,000 and over	47,276	46,672	98.7	429,074,001	9,193

Domestic animals were reported by a relatively smaller number of farms under 3 acres than of any other area. The per cent of farms with animals increased steadily from 74.4 for the group mentioned, to 99.2 for the group of farms of 260 to 500 acres. The number of farms from which no reports of domestic animals were received, was much smaller than is indicated by the percentages of the tables, for the animals on some rented farms were the property of the farm owner, and were not reported in the name of the tenant. Many small and a few large tenant farms of this kind were found in the South. The enumerators acted contrary to instructions in so reporting these animals. The explanation of the high average value of domestic animals on farms of less than 3 acres was given in the discussion of table XLIV.

DOMESTIC ANIMALS ON FARMS OF SPECIFIED PRINCIPAL SOURCES OF INCOME.

Table CXXXI, derived from Table 33, presents summaries of the values of domestic animals on farms classified by principal source of income. When taken in connection with the figures of table LIV, derived from Table 16, for all live stock, this table presents a few apparent anomalies.

TABLE CXXXI.—TOTAL AND AVERAGE VALUE OF DOMESTIC ANIMALS ON FARMS, CLASSIFIED BY PRINCIPAL SOURCE OF INCOME, WITH THE NUMBER OF FARMS AND OF FARMS REPORTING ANIMALS, WITH PERCENTAGES.

FARMS CLASSIFIED BY PRINCIPAL SOURCE OF INCOME.	Number of farms.	Farms reporting animals.	Per cent of farms reporting animals.	Value of animals.	Average value per farm reporting.
Total	5,739,657	5,499,988	95.8	$2,981,722,945	$542
Hay and grain	1,319,856	1,219,413	92.4	639,325,141	524
Vegetables	155,898	142,546	91.4	35,968,297	252
Fruits	82,176	71,242	86.7	19,271,416	270
Live stock	1,564,714	1,547,622	98.9	1,544,170,276	998
Dairy produce	357,578	357,578	100.0	234,934,206	657
Tobacco	106,272	101,331	95.4	23,749,174	234
Cotton	1,071,545	1,021,515	95.3	180,862,233	177
Rice	5,717	5,083	88.9	1,753,776	345
Sugar	7,344	6,792	92.5	6,881,025	1,013
Flowers and plants	6,159	2,425	39.4	364,066	150
Nursery products	2,029	1,162	57.3	435,740	375
Taro	441	241	54.6	44,681	185
Coffee	512	356	69.5	76,218	214
Miscellaneous	1,059,416	1,022,682	96.5	293,886,696	287

As shown by Table 16, the average value of $1,009 for live stock on live-stock farms, was higher than for any other class of farms. The sugar farms ranked next, with an average of $957. For domestic animals, given in table CXXXI, the corresponding averages are $998 and $1,013, respectively. The explanation of this variation is that the averages of the two tables were calculated by different methods. In Table 16, live-stock averages were based upon the total number of farms; while those given in table CXXXI are for only those farms which reported domestic animals.

Of the live-stock farms, 98.9 per cent reported domestic animals, the remaining 1.1 per cent representing

farms on which poultry or bee products formed the principal source of income.

Only 92.5 per cent of the sugar farms reported domestic animals, owing to the fact that in some cases those on rented farms were reported on the farms of the owners, as has been heretofore explained.

Florists' establishments reported the lowest average value of domestic animals, and only 39.4 per cent reported any animals whatever. If the total number of establishments be used as the divisor in calculating the average value per farm, it would be less than $60 per farm, or about one-sixteenth of that for live-stock or sugar farms. Vegetable, fruit, tobacco, cotton, coffee, taro, and miscellaneous farms all reported low averages, while for hay and grain, live-stock, dairy, and sugar farms, the averages reported were relatively high.

DOMESTIC ANIMALS ON FARMS CLASSIFIED BY COLOR OF FARMER AND BY TENURE.

Tables 29, 30, and 31 present in detail the statistics of animals on farms classified by tenure and by the color of farmer. Some of the most important facts shown therein, relating to the total value of all domestic animals on farms, are condensed and presented in table CXXXII.

TABLE CXXXII.—TOTAL AND AVERAGE VALUE OF DOMESTIC ANIMALS, ON FARMS OF SPECIFIED TENURES, JUNE 1, 1900, WITH AVERAGES AND PERCENTAGES.

A.—ALL FARMS.

FARMS CLASSIFIED BY TENURE.	Number of farms.	Farms reporting animals.	Per cent of farms reporting animals	Value of animals.	Average value per farm reporting.
Total	5,739,657	5,499,988	95.8	$2,981,722,945	$542
Owners	3,149,344	3,037,470	96.4	1,605,353,871	529
Part owners	451,615	445,571	98.7	420,486,929	944
Owners and tenants	53,299	52,390	98.3	35,739,652	682
Managers	59,213	53,934	91.1	248,184,915	4,602
Cash tenants	752,920	714,688	94.9	281,932,825	395
Share tenants	1,273,366	1,195,985	94.0	390,024,753	326

B.—FARMS OF WHITE FARMERS.

Total	4,970,129	4,788,727	96.4	$2,885,586,030	$603
Owners	2,974,497	2,871,096	96.5	1,571,354,877	547
Part owners	420,916	415,911	98.8	415,474,909	999
Owners and tenants	51,717	50,877	98.4	35,315,557	694
Managers	57,353	52,218	91.0	245,996,288	4,711
Cash tenants	477,100	457,261	95.8	251,685,923	550
Share tenants	988,546	941,364	95.2	365,758,476	389

C.—FARMS OF COLORED FARMERS.

Total	769,528	711,261	92.4	$96,136,915	$135
Owners	174,847	166,374	95.2	33,998,994	204
Part owners	30,599	29,660	96.9	5,012,020	169
Owners and tenants	1,582	1,513	95.6	424,095	280
Managers	1,860	1,716	92.3	2,188,627	1,275
Cash tenants	275,820	257,377	93.3	30,246,902	118
Share tenants	284,820	254,621	89.4	24,266,277	95

Of the total number of farms in the United States, 4,970,129, or 86.6 per cent, were operated by white farmers, and 769,528, or 13.4 per cent, by colored farmers. The value of domestic animals on the farms of white farmers amounted to $2,885,586,030, or 96.8 per cent of the total value of all such animals on farms and ranges. The colored farmers reported a value of $96,136,915, or only 3.2 per cent of all such values. In proportion to the number of farms, they controlled only about one-fourth as much of the value in domestic animals as white farmers, the average value per farm being $135 for colored, and $603 for white farmers.

If account be taken of the areas of their farms (see Tables 13 and 14), the colored farmers make a somewhat better showing than is indicated by the foregoing figures. White farmers controlled 95.0 per cent of the area of all farms and 96.8 per cent of the value of domestic animals. The land in the farms of the colored farmers constituted 5.0 per cent of the total farm area, and the value of their domestic animals, 3.2 per cent. The great disparity, therefore, between the per cent of farms controlled by colored farmers, and the per cent of live-stock values thereon, was largely due to the small size of their farms.

VALUE OF DOMESTIC ANIMALS: 1880 TO 1900.

It is difficult to make a satisfactory comparison between the figures of two census reports, when, for any reason, a change has been made in the method of securing the figures. This is true even though the changes were made in the interest of greater accuracy, as was the case in all changes made in the schedule used in 1900. To secure definite statistics of animal values, the farmers were asked to report the value of each class of animals kept by them, instead of calling only for a general estimate of the value of all their live stock, as was done for preceding census years. The questions on the schedules prior to 1900 were so arranged as to suggest to the enumerator that the only values desired were those of the domestic animals most common on the farms; hence, the only figures of 1900 that are comparable with live-stock estimates of earlier years are those for domestic animals. A comparison is made between these figures in tables CXXXIII and CXXXIV.

TABLE CXXXIII.—REPORTED VALUE OF DOMESTIC ANIMALS ON FARMS AND RANGES IN 1900, AND REPORTED VALUE OF LIVE STOCK IN 1890 AND 1880, WITH PERCENTAGES, BY STATES AND TERRITORIES.

STATES AND TERRITORIES.	Domestic animals, 1900.	LIVE STOCK.		PER CENT OF INCREASE.	
		1890	1880	1890 to 1900	1880 to 1890
The United States	$2,981,722,945	$2,308,767,573	$1,576,884,707	29.1	46.4
North Atlantic division	305,360,856	313,902,504	286,040,649	[1]2.7	9.7
Maine	16,298,422	18,280,140	16,499,376	[1]10.8	10.8
New Hampshire	10,062,877	10,450,125	9,812,064	[1]3.7	6.5
Vermont	17,373,169	16,644,320	16,586,195	4.3	0.4
Massachusetts	14,730,169	14,200,178	12,957,004	3.7	9.6
Rhode Island	2,281,817	2,364,970	2,254,142	[1]3.5	4.9
Connecticut	10,247,634	9,974,618	10,959,296	2.7	[1]9.0
New York	120,673,101	124,523,965	117,868,283	[1]3.1	5.6
New Jersey	16,269,548	15,811,430	14,861,412	2.9	6.4
Pennsylvania	97,424,119	101,652,758	84,242,877	[1]4.2	20.7

[1] Decrease.

TABLE CXXXIII.—REPORTED VALUE OF DOMESTIC ANIMALS ON FARMS AND RANGES IN 1900, AND REPORTED VALUE OF LIVE STOCK IN 1890 AND 1880, WITH PERCENTAGES, BY STATES AND TERRITORIES—Continued.

STATES AND TERRITORIES.	Domestic animals, 1900.	LIVE STOCK.		PER CENT OF INCREASE.	
		1890	1880	1890 to 1900	1880 to 1890
South Atlantic division	$184,152,273	$161,631,801	$130,570,311	13.9	23.8
Delaware	3,733,335	4,198,810	3,420,080	[1]11.1	22.7
Maryland	19,636,844	19,194,320	15,865,728	2.3	21.0
Dist. of Columbia	122,019	129,120	123,300	[1]5.5	4.6
Virginia	39,831,552	33,404,281	25,953,315	19.2	28.7
West Virginia	29,231,832	23,964,610	17,742,387	21.6	35.1
North Carolina	28,242,147	25,547,280	22,414,659	10.5	14.0
South Carolina	19,167,229	16,572,410	12,199,510	15.7	35.8
Georgia	33,499,683	31,477,990	25,930,352	6.4	21.4
Florida	10,687,632	7,142,980	6,920,980	49.6	3.2
North Central division	1,529,975,317	1,195,704,262	772,457,900	28.0	54.8
Ohio	129,466,134	116,181,690	103,707,730	3.7	12.0
Indiana	105,048,528	93,361,422	71,068,758	12.5	31.4
Illinois	186,856,020	180,431,662	132,437,762	3.6	36.2
Michigan	75,997,051	69,564,985	55,720,113	9.2	24.8
Wisconsin	93,521,430	63,784,377	46,508,643	46.6	37.1
Minnesota	86,620,643	57,725,683	31,904,821	50.1	80.9
Iowa	271,844,034	206,436,242	124,715,103	31.7	65.5
Missouri	154,295,363	138,701,173	95,785,282	11.2	44.8
North Dakota [2]	41,951,659	18,787,294	7,555,274	123.3	541.6
South Dakota [3]	64,287,578	29,689,509	.....	116.5	.....
Nebraska	142,769,029	92,971,920	40,350,265	53.6	130.4
Kansas	186,317,248	128,068,305	62,704,149	45.5	104.2
South Central division	598,255,687	392,155,328	262,152,752	52.6	49.6
Kentucky	70,488,187	70,924,400	49,670,567	[1]0.6	42.8
Tennessee	58,043,895	60,254,230	43,651,470	[1]3.7	38.0
Alabama	34,408,932	30,776,730	23,787,681	11.8	29.4
Mississippi	40,843,300	33,936,435	24,285,717	20.4	39.7
Louisiana	27,757,301	17,898,380	12,345,905	55.1	45.0
Texas	236,227,934	138,409,274	76,569,987	70.7	80.8
Oklahoma	53,921,827	3,206,270	876,000	(4)	(4)
Indian Territory	40,824,886	5,976,729	10,499,000	(4)	(4)
Arkansas	35,739,425	30,772,880	20,472,425	16.1	50.3
Western division	361,453,453	245,373,678	125,663,095	47.3	95.3
Montana	51,724,113	33,266,752	9,170,554	55.5	262.8
Wyoming	39,080,158	18,785,301	9,182,107	10.8	104.6
Colorado	49,359,781	29,675,528	15,972,342	66.3	85.8
New Mexico	31,644,179	25,111,201	10,914,800	26.0	130.1
Arizona	15,375,286	13,227,453	3,210,989	16.2	312.0
Utah	21,175,867	9,914,766	4,371,638	113.6	126.8
Nevada	12,093,608	5,801,820	4,233,749	108.4	37.0
Idaho	21,389,853	7,253,490	4,023,800	194.9	80.3
Washington	21,437,528	14,113,110	5,974,307	59.0	136.2
Oregon	33,172,342	22,648,830	17,110,392	46.5	32.4
California	65,000,738	65,575,427	41,498,417	[1]0.9	58.0
Alaska	1,880	.....	.....	.....	.....
Hawaii	2,523,479	.....	.....	.....	.....

[1] Decrease.
[2] Dakota territory prior to 1890.
[3] Included in Dakota territory prior to 1890.
[4] Incomplete returns.

TABLE CXXXIV.—REPORTED VALUE OF DOMESTIC ANIMALS ON FARMS AND RANGES IN THE UNITED STATES IN 1900, AND REPORTED VALUE OF ALL LIVE STOCK, 1850 TO 1890, WITH PERCENTAGES.

CENSUS YEAR.	Value.	Increase of value.	Per cent of increase.
1900	$2,981,722,945	$672,955,372	29.1
1890[1]	2,308,767,573	731,882,866	46.4
1880[1]	1,576,884,707	346,995,097	28.2
1870[2, 3]	1,229,889,610	140,559,695	12.9
1860[2]	1,089,329,915	545,149,399	100.2
1850[2]	544,180,516	.....	.....

[1] Including estimated value of live stock on ranges.
[2] Including only the reported value of live stock on farms.
[3] Value in gold.

The values secured by enumerators in 1900 were for all animals on farms and ranges. The estimates returned in all preceding years were for live stock on farms only, and did not include the value of live stock on ranges. In 1880 and 1890, estimates of the number of range animals were secured by the Census Office, and general statements of the average values were also published. To make possible a comparison with the figures of the earlier years, the estimates of the value of range animals in those years have been combined with the reported estimated value of the farm animals, and the result is given in tables CXXXIII and CXXXIV. From 1880 to 1890, there was an increase in the value of farm animals of 46.4 per cent for the United States, while in the next decade the gain was only 29.1 per cent. The per cent of gain, however, was slightly greater than that in population.

Of the North Atlantic states, all except Connecticut reported a gain in live stock values between 1880 and 1890, the increase for the group amounting to 9.7 per cent. In the last decade, Maine, New Hampshire, Rhode Island, New York, and Pennsylvania showed decreases ranging from 3.1 per cent in New York to 10.8 per cent in Maine, giving a total decrease for the division of 2.7 per cent. This decrease was due to losses in the number of horses, sheep, and swine, and to the decline in the average value of horses. The increases in the number of other animals and in their average values were not sufficient to counterbalance the losses due to the factors mentioned.

In the South Atlantic division there was a gain of 23.8 per cent between 1880 and 1890, while in the last decade it amounted to only 13.9 per cent. Delaware and the District of Columbia reported decreases, but all the other states showed increases, that for Florida being very great. This was doubtless due to the enumeration in 1900 of the range stock of that state, which was not reported in 1890. No estimates of the number and value of this range stock were obtained in 1890.

In the North Central states the animal values increased 28.0 per cent in the last decade, Ohio and Illinois showing increases of but 3.7 and 3.6 per cent, respectively, while North Dakota recorded a gain of 123.3 and South Dakota 116.5 per cent.

There was a greater average increase in the South Central division than in the North Central or the Western divisions. Kentucky and Tennessee reported smaller values in 1900 than in 1890, but all of the other states reported increases, that in Texas amounting to 70.7 per cent. No per cent is given for Oklahoma or for Indian Territory, as the data for 1890 are too vague and indefinite. The great advance in Texas was due more to an increase in average values than in the number of animals.

The Western division recorded the large increase of 47.3 per cent since 1890 in values of farm animals. This increase was participated in by every state except California. No satisfactory explanation has been found for the decline in that state. Idaho reported the greatest increase of any state in the country—194.9 per cent.

From 1850 to 1860 the reported value of live stock increased from $544,180,516 to $1,089,329,915, a gain of $545,149,399, or 100.2 per cent. This was an average increase of $17.34 for each inhabitant enumerated in 1860. Nearly one-half of this apparent gain was probably due to a more perfect enumeration in 1860 than in 1850, and in part to the great increase in values that followed the discovery of gold in California and Australia.

During the next decade there was an increase to a reported value of $1,525,276,457. In 1870 currency values were reported by enumerators in all states except California, Nevada, Oregon, and Washington, where values were in gold. As the average premium on gold in 1870 was 25.3 per cent, the reported values were equivalent to $1,229,889,610. This is a gain, in gold values, of $140,559,695, or only 12.9 per cent, and an average increase for each enumerated inhabitant of $3.65, or about one-fifth of that in the preceding decade. These two averages reflect better than any others the great destruction of live stock during the Civil War. The South suffered practically the whole of this destruction as the Northern states were able to raise animals to meet the greater part of their losses, and between the close of the war and 1870 they rallied much more rapidly than the South.

In the decade 1870 to 1880 the value of farm animals increased to $1,576,884,707. This sum included estimates for animals on ranges. The increase over the corresponding gold value of 1870 was $346,995,097, an average gain, for each enumerated inhabitant of 1880, of $6.92, or about twice that for the preceding decade.

In the decade ending with 1890 the reported value of live stock increased $731,882,866, an average gain per enumerated inhabitant of $11.68, or about twice as great as in any preceding decade, except that between 1850 and 1860. In 1900 the value of domestic animals exceeded the estimated value of all live stock in 1890 by $672,955,372. This is nearly the same actual increase recorded in the preceding decade, but an increase per inhabitant enumerated in 1900 of only $8.91. This gain, when compared with the averages recorded for the various decades since 1850, is very marked. If the reported value for 1900 of all live stock, including that not on farms and ranges, had been used for this comparison, a greater addition to farm values would have been shown than in any preceding decade.

LIVE-STOCK FARMS.

The farms deriving their principal income from animal products, exclusive of dairy produce, are called live-stock farms. A general summary of the statistics of such farms is given in table cxxxv for the various states and territories.

TABLE CXXXV.—NUMBER AND ACREAGE OF LIVE-STOCK FARMS, AND VALUE OF SPECIFIED FORMS OF FARM AND AVERAGES, BY

	STATES AND TERRITORIES.	NUMBER OF FARMS.		ACREAGE, JUNE 1, 1900.			VALUE OF FARM PROPERTY, JUNE 1, 1900.				
		Total.	With buildings.	Total.	Improved.	Per cent improved.	Total.	Land and improvements (except buildings).	Buildings.	Implements and machinery.	Live stock.
1	The United States[1]	1,564,714	1,536,241	355,009,476	134,748,135	38.0	$7,505,284,273	$4,493,003,548	$1,198,753,681	$235,508,154	$1,578,018,890
2	North Atlantic division	171,139	169,710	15,056,987	8,891,127	59.0	614,838,074	287,479,314	214,175,127	33,915,961	79,267,672
3	Maine	15,048	14,888	1,537,083	573,401	37.3	28,978,948	10,683,720	11,434,560	2,163,980	4,696,688
4	New Hampshire	7,634	7,588	803,508	246,969	30.7	19,064,461	7,391,904	7,780,627	1,239,156	2,652,774
5	Vermont	7,323	7,107	987,107	447,155	45.3	22,499,010	8,940,310	8,075,770	1,624,200	3,858,730
6	Massachusetts	8,193	8,128	517,036	201,468	39.0	26,602,813	10,206,430	12,293,700	1,366,160	2,736,523
7	Rhode Island	2,188	2,167	149,146	60,352	40.5	7,195,490	2,955,690	3,076,650	369,370	793,780
8	Connecticut	7,045	6,969	506,821	216,378	42.7	21,057,370	9,136,180	8,586,950	956,840	2,377,400
9	New York	38,182	37,957	3,485,805	2,323,328	66.7	145,572,118	64,799,280	51,030,480	8,345,720	21,396,638
10	New Jersey	9,531	9,418	656,673	478,811	72.9	38,643,499	16,101,260	15,867,310	2,087,090	4,587,839
11	Pennsylvania	75,995	75,488	6,413,808	4,343,265	67.7	305,224,365	157,264,540	96,029,080	15,763,445	36,167,300
12	South Atlantic division	135,109	133,073	17,742,002	8,067,977	45.5	303,180,494	183,146,160	60,045,000	9,369,910	50,619,424
13	Delaware	2,956	2,945	244,917	155,671	63.6	6,750,287	3,522,190	1,934,200	416,730	877,167
14	Maryland	11,897	11,801	958,339	606,428	63.3	32,895,634	17,036,190	10,112,250	1,547,810	4,199,384
15	District of Columbia	6	6	160	138	86.2	159,085	146,000	8,900	810	3,375
16	Virginia	41,156	40,622	5,513,798	2,975,839	54.0	106,510,584	66,122,080	20,819,090	2,854,970	16,714,444
17	West Virginia	36,255	35,649	5,021,968	2,809,042	55.9	101,725,834	66,712,750	15,641,920	2,462,420	16,908,744
18	North Carolina	23,607	23,123	2,756,147	846,032	30.7	27,621,676	16,076,730	6,097,820	995,070	4,452,056
19	South Carolina	3,376	3,289	471,816	96,126	20.4	4,766,633	2,741,700	1,043,170	230,770	750,993
20	Georgia	10,706	10,691	2,095,434	421,302	20.1	13,736,872	7,280,350	3,100,910	612,140	2,743,472
21	Florida	5,150	4,947	679,423	157,399	23.2	9,013,889	3,508,170	1,286,740	249,190	3,969,789
22	North Central division	916,907	903,105	141,880,122	94,156,730	66.4	5,093,745,879	3,264,017,453	779,259,810	154,811,010	895,657,606
23	Ohio	113,520	111,896	10,926,072	8,616,736	78.9	481,319,434	315,295,560	87,684,660	15,299,030	63,040,184
24	Indiana	107,887	106,440	10,638,358	8,065,020	75.8	477,104,236	320,295,710	78,993,860	13,713,020	64,101,646
25	Illinois	113,674	111,800	13,673,753	11,070,551	81.0	744,327,774	522,648,320	106,413,880	17,417,870	97,847,704
26	Michigan	68,998	68,380	6,322,083	4,407,845	69.7	252,270,018	147,738,050	60,441,740	10,944,110	33,146,118
27	Wisconsin	59,182	58,629	7,926,842	4,592,824	57.9	319,448,898	204,173,250	59,783,970	10,906,140	44,585,538
28	Minnesota	19,483	19,116	2,831,881	1,791,059	63.2	99,664,105	64,018,280	17,551,800	3,673,820	14,420,205
29	Iowa	133,625	131,890	21,133,392	17,841,554	84.4	1,151,548,425	756,922,280	159,753,250	36,154,230	198,718,665
30	Missouri	151,451	149,179	20,148,833	13,876,133	68.9	618,720,308	399,030,593	90,696,120	16,674,960	112,318,635
31	North Dakota	3,056	2,888	1,376,325	395,173	28.7	19,851,964	5,645,470	1,459,100	637,070	11,610,324
32	South Dakota	12,828	12,295	5,837,504	2,423,436	41.5	88,253,764	43,788,570	8,567,010	2,789,660	33,108,524
33	Nebraska	53,895	52,864	17,128,839	8,788,206	51.3	367,390,827	217,226,280	47,027,520	12,109,170	91,027,857
34	Kansas	79,308	77,728	23,936,240	12,288,193	51.3	474,346,126	267,235,090	60,886,900	14,491,930	131,732,206
35	South Central division	271,615	265,053	124,689,428	16,063,504	12.9	878,690,363	467,962,490	99,838,770	23,048,183	287,840,920
36	Kentucky	78,547	76,949	8,481,529	5,301,736	62.5	174,147,432	100,335,860	33,788,320	5,490,060	34,533,192
37	Tennessee	65,546	64,138	6,585,194	3,114,030	47.3	110,025,387	60,541,715	21,303,475	4,921,643	23,258,554
38	Alabama	12,825	12,394	1,729,768	485,069	28.0	14,652,615	7,724,750	3,145,540	682,300	3,100,025
39	Mississippi	9,117	9,106	1,555,120	386,110	24.8	16,216,290	7,384,970	3,744,460	917,580	4,169,280
40	Louisiana	7,119	7,070	1,089,753	310,153	28.5	13,263,763	6,611,200	2,430,300	767,790	3,454,473
41	Texas	42,624	40,728	90,174,477	3,080,259	3.4	391,788,647	215,060,135	22,504,640	5,681,595	148,542,277
42	Oklahoma	14,896	14,552	7,661,781	1,340,610	17.5	74,101,280	34,757,200	3,756,895	1,682,105	33,955,080
43	Indian Territory	10,207	9,999	3,896,028	814,544	20.9	49,642,044	17,651,500	2,826,620	1,184,340	27,979,584
44	Arkansas	30,731	30,117	3,515,778	1,231,053	35.0	34,852,905	17,895,160	6,338,520	1,770,770	8,848,455
45	Western division	69,745	65,109	54,199,407	7,547,200	13.9	610,300,139	287,225,731	45,230,494	14,332,650	263,511,264
46	Montana	6,048	5,699	9,543,538	914,255	9.6	82,708,374	30,114,050	4,992,500	2,013,570	45,588,254
47	Wyoming	3,791	3,209	7,321,380	598,795	8.2	59,715,503	18,931,750	2,688,640	1,050,165	37,044,948
48	Colorado	8,761	8,245	6,102,102	936,087	15.3	79,385,122	34,630,310	5,898,770	1,771,675	37,084,367
49	New Mexico	4,084	3,517	4,358,724	133,641	3.1	41,188,574	9,793,484	1,708,930	557,860	29,128,300
50	Arizona	2,343	1,705	1,606,948	98,531	6.1	19,701,270	5,193,843	1,034,700	327,870	13,144,857
51	Utah	5,458	4,934	2,475,256	316,385	12.8	32,633,667	12,539,680	3,232,270	967,760	15,893,957
52	Nevada	966	902	2,085,837	355,803	17.1	19,312,047	7,169,870	1,059,760	394,160	10,688,257
53	Idaho	5,045	4,658	1,059,956	431,964	40.8	30,016,831	10,514,263	2,294,080	1,122,800	16,085,688
54	Washington	7,613	7,393	2,477,278	426,472	17.2	28,725,519	16,045,250	3,375,650	1,068,130	8,236,489
55	Oregon	10,218	9,878	4,644,659	856,070	18.4	59,627,943	31,236,041	5,637,074	1,863,240	20,891,588
56	California	15,418	14,969	12,523,729	2,479,197	19.8	157,285,289	111,057,190	13,308,120	3,195,420	29,724,559
57	Hawaii	198	190	1,441,529	21,596	1.5	4,529,174	3,172,400	204,380	80,430	1,121,964
58	Alaska	1	1	1	1	100.0	150	(2)	100	10	40

[1] Data for Alaska and Hawaii included in totals for United States, but not in those for the five geographic divisions. [2] No titles to land.

PROPERTY, VALUE OF PRODUCTS AND EXPENDITURES FOR LABOR AND FERTILIZERS, WITH PERCENTAGES STATES AND TERRITORIES.

VALUE OF PRODUCTS, 1899.				EXPENDITURES, 1899.		AVERAGE VALUES PER FARM.							Average value per acre of products of 1899 not fed.	AVERAGE EXPENDITURES PER FARM, 1899.		
						Farm property, June 1, 1900.					Products, 1899.					
Total.	Fed to live stock.	Not fed to live stock.	Per cent not fed, to value of property.	Labor.	Fertilizers.	Total.	Land and improvements (except buildings).	Buildings.	Implements and machinery.	Live stock.	Total.	Not fed to live stock.		Labor.	Fertilizers.	
$1,654,135,912	$421,290,090	$1,232,845,822	16.4	$101,544,790	$7,687,047	$4,797	$2,871	$766	$151	$1,009	$1,057	$788	$3.47	$65	$5	1
134,480,401	39,839,900	94,640,501	15.4	11,167,262	2,439,303	3,593	1,680	1,252	198	463	786	553	6.29	65	14	2
9,043,666	2,622,420	6,421,246	22.2	520,780	136,010	1,926	710	760	144	312	601	427	4.18	35	9	3
4,925,695	1,409,585	3,516,110	18.4	443,454	81,423	2,497	968	1,019	162	348	645	460	4.38	58	11	4
6,718,691	2,305,120	4,413,571	19.6	676,870	81,915	3,072	1,221	1,103	221	527	917	602	4.47	92	11	5
5,577,830	1,123,000	4,454,830	16.7	707,880	113,890	3,247	1,246	1,500	167	334	681	544	8.62	86	14	6
1,616,454	268,680	1,347,774	18.7	153,540	37,830	3,289	1,351	1,406	169	363	739	616	9.04	70	17	7
4,691,030	1,258,580	3,432,450	16.3	537,390	88,830	2,989	1,297	1,219	136	337	666	487	6.77	76	13	8
30,598,660	9,512,590	21,086,070	14.5	3,250,590	389,180	3,813	1,607	1,337	219	560	801	552	6.05	85	10	9
8,095,230	2,176,390	5,918,840	15.3	1,069,800	312,940	4,055	1,689	1,665	219	482	849	621	9.01	112	33	10
63,213,145	19,163,535	44,049,610	14.4	3,807,008	1,197,285	4,016	2,069	1,264	207	476	832	580	6.87	50	16	11
69,606,623	13,858,390	55,748,233	18.4	4,428,200	1,577,420	2,244	1,356	444	69	375	515	418	3.14	33	12	12
1,673,230	412,900	1,260,330	18.7	119,320	84,240	2,284	1,192	654	141	297	566	426	5.15	40	28	13
7,063,010	1,840,120	5,222,890	15.9	688,400	340,770	2,765	1,432	850	130	353	594	439	5.45	58	29	14
8,080	970	7,110	4.5	1,080	170	26,514	24,333	1,483	135	563	1,347	1,185	44.44	180	28	15
23,363,190	4,645,970	18,717,220	17.6	1,819,010	569,320	2,588	1,607	506	69	406	568	455	3.39	44	14	16
21,356,274	4,361,260	16,995,014	16.7	987,310	179,860	2,806	1,840	432	68	466	589	469	3.38	27	5	17
7,799,348	1,343,190	6,456,158	23.4	352,540	171,160	1,170	681	258	42	189	330	273	2.34	15	7	18
1,676,490	151,300	1,525,190	32.0	122,070	74,320	1,412	812	309	68	223	497	452	3.23	36	22	19
4,250,010	790,410	3,459,600	25.2	226,790	114,260	1,283	680	290	57	256	397	323	1.65	21	11	20
2,416,991	312,270	2,104,721	23.3	111,680	43,320	1,750	681	250	48	771	469	409	3.10	22	8	21
1,130,225,485	314,674,860	815,550,625	16.0	55,720,905	2,901,804	5,555	3,559	850	169	977	1,233	890	5.75	61	3	22
110,669,116	27,822,230	82,846,886	17.2	5,011,750	1,105,860	4,240	2,778	772	135	555	975	730	7.58	44	10	23
105,294,856	27,908,490	77,386,366	16.2	4,384,580	697,150	4,422	2,969	732	127	594	976	717	7.27	41	6	24
142,237,611	42,258,300	99,979,311	13.4	7,908,280	238,510	6,548	4,598	936	153	861	1,251	879	7.31	70	2	25
56,439,190	16,035,990	40,403,200	16.0	3,811,660	149,120	3,656	2,141	876	159	480	818	586	6.39	55	2	26
68,183,925	20,260,090	47,923,835	15.0	4,285,010	103,700	5,398	3,450	1,010	184	754	1,152	810	6.05	72	2	27
21,273,874	5,541,760	15,732,114	15.8	1,691,525	27,934	5,115	3,286	901	188	740	1,092	808	5.56	87	1	28
247,776,078	74,455,510	173,320,568	15.1	10,782,900	193,880	8,618	5,665	1,195	271	1,487	1,854	1,297	8.20	81	1	29
137,378,840	40,382,540	96,996,300	15.7	5,747,300	171,830	4,085	2,635	599	110	741	907	640	4.81	38	1	30
4,681,680	857,660	3,824,020	19.8	479,660	1,470	6,332	1,847	477	209	3,799	1,532	1,251	2.78	157	(3)	31
19,521,359	4,187,300	15,334,059	17.4	1,354,150	3,110	6,880	3,414	668	217	2,581	1,522	1,195	2.63	106	(3)	32
90,740,276	23,185,630	67,563,646	18.4	4,341,100	78,060	6,817	4,030	873	225	1,689	1,684	1,254	3.94	81	1	33
126,019,680	31,779,360	94,240,320	19.9	5,922,990	181,180	5,981	3,369	768	183	1,661	1,589	1,188	3.94	75	2	34
189,330,362	32,411,316	156,919,046	17.9	9,905,091	709,606	3,235	1,723	367	85	1,060	697	578	1.26	36	3	35
43,840,195	9,085,270	34,754,925	20.0	2,202,220	293,200	2,217	1,277	430	70	440	558	442	4.10	28	4	36
32,789,140	7,069,320	25,719,820	23.4	1,389,360	227,570	1,679	924	325	75	355	500	392	3.91	21	3	37
4,162,951	753,020	3,409,931	23.3	191,500	83,420	1,143	603	245	53	242	325	266	1.97	15	7	38
4,594,830	931,070	3,663,760	22.6	270,290	50,610	1,779	810	411	101	457	504	402	2.86	30	6	39
3,127,500	505,790	2,621,710	19.8	182,440	20,100	1,863	929	341	108	485	439	368	2.41	26	3	40
58,655,070	6,180,240	52,474,830	13.4	3,949,515	18,196	9,192	5,046	528	133	3,485	1,376	1,231	0.58	93	(3)	41
17,279,166	3,022,116	14,257,050	19.2	759,656	.....	4,975	2,333	252	110	2,280	1,160	957	1.36	51	.....	42
11,722,140	1,796,410	9,925,730	20.0	572,190	.....	4,864	1,730	277	116	2,741	1,148	972	2.55	56	.....	43
13,159,370	3,068,080	10,091,290	29.0	387,920	16,510	1,134	582	206	58	288	428	328	2.87	13	1	44
130,045,447	20,505,624	109,539,823	17.9	20,117,052	58,814	8,750	4,118	649	205	3,778	1,865	1,571	2.02	288	1	45
20,566,735	3,290,900	17,275,835	20.9	3,836,330	.....	13,675	4,979	825	333	7,538	3,401	2,857	1.81	634	.....	46
10,362,235	1,580,890	8,781,345	14.7	2,412,800	10,600	15,752	4,994	709	277	9,772	2,733	2,316	1.20	636	3	47
17,082,706	3,212,060	13,870,646	17.5	1,975,865	2,275	9,061	3,953	673	202	4,233	1,950	1,583	2.27	226	(3)	48
7,762,315	589,820	7,172,495	17.4	1,567,840	.....	10,085	2,398	418	137	7,132	1,901	1,756	1.65	384	.....	49
4,441,141	435,020	4,006,121	20.3	785,140	.....	8,409	2,217	442	140	5,610	1,895	1,710	2.49	335	.....	50
7,762,671	1,233,830	6,528,841	20.0	1,079,750	2,859	5,979	2,298	592	177	2,912	1,422	1,196	2.64	198	1	51
4,373,973	972,220	3,401,753	17.6	845,440	.....	19,992	7,422	1,097	408	11,065	4,528	3,522	1.63	875	.....	52
9,369,541	1,602,683	7,766,858	25.9	1,222,455	4,590	5,950	2,084	455	223	3,188	1,857	1,539	7.33	242	1	53
7,407,880	1,343,320	6,064,560	21.1	727,190	2,370	3,773	2,108	443	140	1,082	973	797	2.45	96	(3)	54
14,907,210	2,635,801	12,271,409	20.6	1,730,962	3,340	5,836	3,057	552	182	2,045	1,459	1,201	2.64	169	(3)	55
26,009,040	3,609,080	22,399,960	14.2	3,933,280	32,780	10,201	7,203	863	207	1,928	1,687	1,453	1.79	255	2	56
447,450	.....	447,450	9.9	206,280	100	22,875	16,022	1,032	154	5,667	2,260	2,260	0.31	1,042	1	57
144	.....	144	96.0	.....	.....	150	(3)	100	10	40	144	144	144.00	.....	.....	58

[3] Less than $1.

There were in the United States, June 1, 1900, 1,564,714 farms that were classed as live-stock farms. They constituted 27.3 per cent of all farms, and were more numerous than the farms of any other group classified by source of income.

These live-stock farms had fixed investments in land, buildings, live stock, and implements and machinery, of $7,505,284,273, or 36.6 per cent of all investments in farm property in the United States. They contained 355,009,476 acres, or 42.2 per cent of all land in farms, which land, exclusive of buildings, was worth $4,493,-003,548, or 34.3 per cent of the value of all farm land. The value of the land was a little below that for hay and grain farms, but the buildings on these farms were worth 26.5 per cent less than those on the former. The value of the animals upon live-stock farms was a little more than that on all other farms. The states with the largest number of live-stock farms were: Missouri, 151,451; Iowa, 133,625; Illinois, 113,674; Ohio, 113,520; and Indiana, 107,887.

Texas had only 42,624 live-stock farms, while the number of cotton farms was 228,606. This fact partially explains the decrease in the number of neat cattle, as well as of sheep, chronicled by the census reports for this state. Land in certain sections and counties of Texas corresponding in general characteristics to that of the range area of the Western states, is still devoted almost exclusively to the live-stock industry, but it is otherwise in the sections devoted to general farming. Much live stock is still kept, as shown by the large total for the state, but the industry on the great majority of the farms is incidental to general agriculture.

NEAT CATTLE.

INTRODUCTION INTO THE UNITED STATES.

The first neat cattle introduced into America were brought to the West India Islands by Columbus in 1493. From these islands, they were taken by the Spaniards into Mexico about 1525. In the mild climate of that country, with its rich and abundant pasturage, they multiplied rapidly, spread into the territory now included in the states and territories of California, New Mexico, Arizona, and Texas, and became the progenitors of what are now known as "Texas cattle." The Spaniards also introduced cattle into Florida, and established herds from which, with slight modifications, are descended most of the cheap cattle now found in that and adjoining states. The same stock was introduced into Virginia from the West Indies in 1610 and 1611.

Following the introduction of Spanish cattle came those from northern Europe, from which are descended the greater portion of the cattle in this country. Of this second and most important stock, the first importations were made from England into Massachusetts in 1624; from Holland into New York in 1627; and from Denmark into New Hampshire in 1631. The English settled Maryland in 1633, North and South Carolina in 1660 and 1670, and Pennsylvania in 1682, and, either at the time of settlement or shortly thereafter, they brought the cattle that were common about the ports of the mother country from which they sailed.

The early English settlers so far outnumbered those of other nationalities, and their importations of cattle were so much more numerous, that the identity of the cattle imported by the settlers from northern Europe was soon lost, and only the breeds introduced by the Spanish in the South and by the English in the North can be traced.

During the earlier history of the colonies, the following breeds of English cattle were introduced: Devons, Herefords, Shorthorns, Polled, Galloways, and a few Alderneys. As most of the settlers were poor, little attention was paid to the purity of the various breeds.

IMPROVEMENT OF STOCK BY IMPORTATIONS OF PURE-BLOODED CATTLE.

Early in the nineteenth century, the subject of breeding fine cattle in the United States began to attract attention, but they were bred more for show than for practical purposes. In 1816 some Shorthorns were imported and taken into Kentucky, and later into other parts of the United States. The raising of this breed, of which the Durham is the best type, has continued since the first importation, and there are more pure-blooded and grade Shorthorns to be found in this country to-day than of all other breeds.

A few Herefords were also introduced into Kentucky in 1816, but this breed was soon abandoned for the Shorthorn. The first Hereford stock in New York was imported in 1840. It has shown good "hustling" qualities, is able to travel well, and is almost an ideal animal for beef purposes. As a result, the Herefords have become very popular in the range states where cattle must often travel miles for water.

The Aberdeen, or Polled Angus cattle, were introduced about 1870 and soon rivaled the Herefords for beef purposes. They are more sluggish than the latter, resembling the Shorthorns in this respect, and seem to be best adapted to the climate and general conditions prevailing in the North Central states. The greatest rivalry exists between the breeders of Herefords and Polled Angus cattle, and a continued improvement in both breeds is certain to result. Although there is a wide difference of opinion with respect to the character of country best suited to these cattle, both will doubtless continue popular for beef purposes.

Some attention has been given to breeding cows for dairy purposes only, and, with this object in view, importations have been made of the Jerseys and Alderneys. There are now many fine herds of both breeds. As the great majority of American farmers keep cattle for beef as well as for milk, they prefer the Herefords and Polled Angus, which are valuable for both purposes.

The Shorthorns, Herefords, and Polled Angus comprise practically all of the pure-blooded cattle in the United States used for breeding and for grading up native cattle for beef purposes. The Shorthorn is probably the best all-purpose animal of the three, but the breeders of Herefords and Polled Angus have been giving their favorites more attention than have those of the Shorthorns, and, although the latter are at the present time the most numerous, it is probable that before the close of another decade this numerical superiority will not be so marked.

The Twelfth Census endeavored to secure statistics of the number of pure-blooded cattle and the number of those of special breeds. The attempt, so far as it depended upon the reports of the enumerators, was not successful; but, by correspondence with the Secretary of the American Aberdeen-Angus Association, it was ascertained that the number of cattle of that breed in the United States in 1890 was 8,749, with a value of $1,312,350. The number in 1900 had increased to about 25,000, and the value to about $5,100,000, an approximate gain in ten years of 185.7 per cent in number, and of 288.6 per cent in value.

The increase in pure-blooded Herefords has been remarkable, especially when compared with the actual decrease in the total number of neat cattle in the country. This gain was numerically equal to and relatively greater than that of the more numerous Shorthorns.

Judging from the correspondence with the secretaries of various pure blooded stock associations, the North Central states had more herds of pure-blooded cattle than any other, and probably more than all others. The range states of the West, however, are using pure-blooded bulls more extensively than any other group of states in breeding up their native stock. The figures of the census give most marked evidence of this fact. The average value of bulls was greater in the Western states than in any other division, being $42.12, while the average for the entire country was $34.49, and that for the South Atlantic states, only $15.26. Of the Western states, Wyoming reported an average value of bulls of $69.12, the highest for the country. The average for Colorado was $55.26, and for Montana, $53.97. The attention which is being given to stock improvement in these states is strongly emphasized by contrasting the foregoing figures with the low averages of $10.29 for Florida, and $9.25 for Georgia, where, except in a few counties, no attention is paid to this subject, and where the quality of animals is deteriorating instead of improving.

The North Central division, where most of the pure-blooded herds are found, naturally shows a high average value of bulls, $40.53, ranking next to the Western division. Nebraska, Kansas, Iowa, and North Dakota reported the highest average values, and in these as well as in the neighboring states of the Western division the pure-bred bulls are being extensively used in breeding up the cattle raised for beef.

As heretofore intimated, no definite statistics concerning the number of pure-blooded cattle in the United States are available, but by combining the estimates of secretaries of the various pure-blooded cattle associations, it appears probable that the number of such cattle June 1, 1900, was approximately 700,000, or about 1 per cent of all cattle in this country. If these animals had an average value such as was given by the Secretary of the Polled Angus Association, the blooded cattle of the United States have a total value of nearly $150,000,000, or about 10 per cent of the reported value of all neat cattle. This estimate doubtless exceeds the actual value, but it suffices to emphasize the importance of pure-blooded cattle on farms and ranges in this country.

From 1890 to 1900, the total number of neat cattle, excluding calves, decreased 5,159,555, or 8.9 per cent, but the value of these animals in 1900, as reported by the census, was $426,346,789 greater than the estimate of the value of the same class of animals made in 1890 by the Department of Agriculture. These facts show a gain in average value of 46.7 per cent. Since the increase during the last few years in the value of animals has been due to a variety of causes, it is impossible to estimate accurately what proportion of this gain in value is attributable to the improvement in quality through the growth of herds of pure bloods, and to their crossing with the original native stock. That a considerable part of the increase shown in the foregoing comparison is due to the introduction of pure-blooded cattle may, however, be inferred from the fact that the greatest increase in average price has been in states paying most attention to stock improvement, and the least in those where practically no consideration has been given to the subject.

CLASSIFICATION OF NEAT CATTLE.

The first classification of neat cattle used in the statistics of domestic animals in the United States was adopted by the census of 1850. The instructions to the enumerators at that time directed them to report all neat cattle on farms, exclusive of calves, under three heads: "working oxen," "milch cows," and "other cattle." This classification was admirably adapted to furnish all information relating to neat cattle that was of any particular value at that time, but the changed conditions incident to the marketing of animals and the development of the dairy interests caused a demand for a more detailed classification, one that would classify the "she-

stock," as all cows and heifers are ordinarily designated, according to age and to present use for dairy or breeding purposes, and group "other cattle" according to age and prospective relation to the beef market. The classification of the Twelfth Census, in order to meet these requirements, separates neat cattle into eight groups, as shown in the accompanying tables.

NUMBER OF NEAT CATTLE IN 1900.

The total number of neat cattle in the United States reported June 1, 1900, was 69,438,758, of which 67,822,336, or 97.7 per cent, were on farms and ranges, and 1,616,422, or 2.3 per cent, in barns and inclosures elsewhere.

The following table presents a brief summary of the number and total and average values of all neat cattle reported on farms and ranges, June 1, 1900:

TABLE CXXXVI.—NUMBER AND VALUE OF SPECIFIED CLASSES OF NEAT CATTLE ON FARMS AND RANGES IN THE UNITED STATES, JUNE 1, 1900, WITH AVERAGES.

CLASSES.	Number.	Value.	Average value.
Total	67,822,336	$1,476,499,714	$21.77
Calves under 1 year	15,333,099	137,375,655	8.96
Steers 1 and under 2 years	6,968,188	130,492,503	18.73
Steers 2 and under 3 years	5,203,325	151,508,747	29.12
Steers 3 years and over	3,086,029	109,508,584	35.51
Bulls 1 year and over	1,315,963	45,391,948	34.49
Heifers 1 and under 2 years	7,183,916	121,626,697	16.93
Cows kept for milk, 2 years and over	17,139,674	503,745,131	29.68
Cows and heifers not kept for milk, 2 years and over	11,592,142	271,760,449	23.44

Table cxxxvii, which follows, presents the number and the estimated total value of each of these classes of cattle not on farms and ranges, and the total value of all neat cattle in the United States.

TABLE CXXXVII.—NUMBER AND ESTIMATED VALUE OF NEAT CATTLE NOT ON FARMS OR RANGES, AND VALUE OF ALL NEAT CATTLE IN THE UNITED STATES, JUNE 1, 1900.

CLASSES.	NOT ON FARMS OR RANGES.		Value of all neat cattle.[1]
	Number.	Estimated value.	
Total	1,616,422	$41,102,637	$1,517,602,351
Calves under 1 year	262,146	2,348,828	139,724,483
Steers 1 and under 2 years	55,548	1,040,320	131,532,823
Steers 2 and under 3 years	51,005	1,485,266	152,994,013
Steers 3 years and over	105,802	3,757,029	113,355,613
Bulls 1 year and over	13,609	469,374	45,861,322
Heifers 1 and under 2 years	79,517	1,346,223	122,972,920
Cows kept for milk, 2 years and over	973,033	28,879,619	537,624,750
Cows and heifers not kept for milk, 2 years and over	75,767	1,775,978	273,536,427

[1] Including estimated value of neat cattle not on farms or ranges and reported value of other neat cattle.

Assuming that these cattle had the same average value as those on farms and ranges, their total value on June 1, 1900, would have been $41,102,637. The enumerators returned no estimates of values for live stock not on farms, and that above given is doubtless below the aggregate actual value, as neat cattle not on farms have a somewhat greater average value than those on farms and ranges.

STEERS.

Number.—Of the 53,843,513 neat cattle 1 year old and over in the United States, June 1, 1900, 15,469,892, or 28.7 per cent, were steers. Of this number, a few only were working oxen, as the great majority were kept exclusively for beef. Of the 52,489,237 neat cattle, exclusive of calves, on farms and ranges, 15,257,542, or 29.1 per cent, were steers.

Table CXXXVIII shows the distribution of steers by geographic divisions, and presents also the ratio which those of each specified age have to the total number.

TABLE CXXXVIII.—NUMBER OF STEERS OF SPECIFIED AGES ON FARMS AND RANGES, JUNE 1, 1900, WITH PERCENTAGES, BY GEOGRAPHIC DIVISIONS.

GEOGRAPHIC DIVISIONS.	Total.	1 and under 2.	2 and under 3.	3 and over.	PER CENT.		
					1 and under 2.	2 and under 3.	3 and over.
The United States.	15,257,542	6,968,188	5,203,325	3,086,029	45.7	34.1	20.2
North Atlantic	367,809	188,429	120,077	59,303	51.2	32.7	16.1
South Atlantic	928,807	374,514	290,720	263,573	40.3	31.3	28.4
North Central	7,685,734	3,703,583	2,830,373	1,151,778	48.2	36.8	15.0
South Central	4,268,866	1,779,914	1,294,279	1,194,673	41.7	30.3	28.0
Western	1,968,170	906,673	657,557	403,940	46.1	33.4	20.5
Alaska and Hawaii	38,156	15,075	10,319	[1]12,762	39.5	27.1	33.4

[1] Including 80 Chinese buffaloes and 47 working bullocks in Hawaii.

Steers 1 and less than 2 years old, constituted 45.7 per cent of all steers on farms and ranges in the United States. The number of steers 2 and under 3 years old was 1,764,863 less than that of steers 1 and under 2 years old, showing that substantially that number had been sold in the winter and spring of 1900 shortly before they were 2 years old. The number of steers 2 and under 3 years old exceeded that of the class 3 years old and over by 2,117,296, which represents practically the number of steers over 2 and under 3 years old that were sold during the year preceding June 1, 1900. Some of these were sold in the summer of 1899 as 2-year-olds, and the remainder were sold as 3-year-olds in the winter and spring of 1900. These figures indicate that more than 40.0 per cent of the steers marketed or slaughtered were what are commonly spoken of as 2-year-olds, their ages varying from 18 months to 2½ years. The largest relative number of young animals were marketed from the North Altantic and North Central divisions. This fact is reflected by the large per cent of steers less than 2 years old in these sections of the country and the small per cent of those over 3 years old. In the South Atlantic and South Central states a larger number was kept to a greater age. The Western division held in this respect an intermediate position.

Large numbers of steers 1 and under 2 years old were sold from Texas and other South Central states,

to be shipped to other sections for fattening. This accounts for the low per cent of that class of cattle in those states, and also explains the higher per cent in the North Central and Western divisions, to which young steers from Texas are shipped.

RECENT CHANGES IN THE AGE FOR MARKETING FATTENED STEERS.

An analysis of the statistics of the census of 1890 and of 1900 demonstrates that there has been a marked decrease in the last ten years in the average age at which fattened steers are sold. This is shown by a decrease in the number of 2- and 3-year-old steers in 1900, as compared with the number of other cattle, the high prices of the spring of 1900 doubtless contributing largely to this change. For a portion of the country the extent of this change can be determined with but a small margin of error. The census of 1890, in the statistics of range cattle, reported 3,529,760 cattle other than cows and calves. These animals were classified by age, the average being 2.18 years. The average age of range animals reported in the Western and South Central states, June 1, 1900, was 1.63 years. In those states, therefore, the average age decreased in the decade, 0.55 of a year, or more than 6 months. It is probable that there was a corresponding decrease in the other states. The average age at which beef cattle are marketed is always about 6 months greater than the average age of all neat cattle on hand June 1, but the decrease for any period of time in the average age of animals corresponds closely with the decrease in the average age of those marketed. Further, the number of beef cattle marketed in any year bears a nearly constant ratio to the number of cows and calves remaining on hand. Upon these facts rests the conclusion that there has been, in the last ten years, a marked decrease in the age at which fattened steers are marketed.

This decrease is at least partially owing to the improvements in the breeding and care of cattle, by which 2-year-old steers are often produced of a weight equal to that of the older cattle marketed in preceding years, thus increasing rather than decreasing the meat supply of the nation. The general prosperity since 1898 has been accompanied by an increased demand for meat, and the decrease in age is doubtless partially due to this fact. Sales of beef cattle in 1898, 1899, and 1900 secured to the public a greater supply of meat than had been utilized in the preceding average years, but could not result otherwise than in a corresponding reduction in the number of beef cattle on farms. The large sales, after a time, caused the farmers and ranchmen to give greater attention to the propagation of cattle. The spaying of cows on the range and elsewhere decreased, and the production of beef animals was thereby increased; but it is quite evident that prior to June 1, 1900, the increase in sales necessary to meet the demands for beef more than balanced the increased production of beef animals. This caused the production of beef to fall behind the consumption and resulted in the advance of prices which began in 1899 and has become so very apparent in 1902.

A similar movement took place in the prosperous years 1880 to 1885, following the financial depression of 1874 to 1878. The high prices at that time stimulated production and lessened consumption until an equilibrium was reached on the basis of supply and demand. Then the lower average prices again prevailed. Similar conditions will doubtless follow the present shortage in meat supply, with its consequent high prices.

The following table gives the average price per hundredweight of beef cattle in Chicago from 1880 to 1900, and shows the movement of prices with varying supply and demand. Attention is specially called to the high prices of May and June, 1882. The designations by which the better grades of beef cattle were given have changed from year to year, as shown in the footnotes to the table, but the character of the animals included in the higher price is the same in all years. The grades indicated by the lower price, however, from 1886 to 1889, appear to have been inferior to those so indicated before and after those dates.

TABLE CXXXIX.—HIGH AND LOW MONTHLY PRICES PER HUNDREDWEIGHT OF FAIR TO CHOICE BEEVES IN CHICAGO: SUMMARY 1880 TO 1900.

[From reports of Chicago Board of Trade.]

MONTHS.	1880		1881		1882		1883		1884		1885[1]		1886[2]	
	High.	Low.	High.	Low.	High.	Low.	High.	Low.	High.	Low.	High.	Low.	High.	Low.
January	$5.20	$3.25	$5.95	$3.75	$6.40	$4.90	$6.00	$4.50	$7.00	$5.00	$6.10	$4.25	$6.25	$1.50
February	5.00	3.15	5.75	4.00	6.40	4.75	6.20	4.60	7.00	5.00	6.00	4.15	6.50	1.00
March	5.25	3.50	6.00	4.00	6.75	5.00	6.80	5.00	7.00	5.25	5.85	4.05	6.50	1.50
April	5.10	3.50	6.10	4.40	7.50	5.50	6.90	5.50	6.85	5.20	5.95	4.10	6.75	1.50
May	5.00	3.40	6.20	4.40	8.50	6.00	6.50	5.25	7.10	5.30	6.00	3.90	6.20	1.50
June	4.90	3.40	6.10	4.75	8.50	6.75	6.20	5.00	7.00	5.65	5.85	3.90	6.00	1.75
July	4.75	3.25	6.05	4.65	8.00	5.75	6.10	5.00	7.05	5.60	5.95	4.10	5.70	1.50
August	4.85	3.25	6.25	4.65	7.40	5.50	6.30	4.75	7.10	5.50	5.90	3.85	5.25	1.25
September	5.35	3.40	6.50	4.75	7.00	4.75	6.30	4.75	7.20	5.75	5.90	3.90	5.25	1.20
October	5.30	3.25	6.75	5.00	6.65	4.50	6.50	4.75	7.25	5.40	6.00	3.75	5.40	1.25
November	5.80	3.40	6.45	4.75	6.25	4.50	6.50	4.80	6.80	5.25	5.80	3.50	5.35	1.00
December	6.10	3.50	6.30	4.75	6.00	4.40	6.65	4.80	6.85	5.00	5.50	3.75	5.60	1.00

[1] Common to choice.

[2] Inferior to prime beeves.

TABLE CXXXIX.—HIGH AND LOW MONTHLY PRICES PER HUNDREDWEIGHT OF FAIR TO CHOICE BEEVES IN CHICAGO: SUMMARY 1880 TO 1900—Continued.

MONTHS.	1887[1]		1888[1]		1889[1]		1890[1]		1891[1]		1892[1]		1893[1]	
	High.	Low.	High.	Low.	High.	Low.	High.	Low.	High.	Low.	High.	Low.	High.	Low.
January	$5.60	$1.00	$5.80	$1.75	$5.25	$1.25	$5.35	$1.50	$5.70	$1.50	$6.10	$1.25	$6.10	$1.50
February	5.60	1.00	5.75	1.75	4.90	1.25	5.35	1.50	5.75	1.50	5.60	1.50	6.35	1.50
March	5.65	1.00	5.70	2.00	4.95	1.25	5.30	1.75	6.25	1.50	5.30	1.75	6.25	2.25
April	5.50	1.00	5.65	2.00	4.85	1.25	5.30	1.75	6.65	1.50	5.15	1.65	6.25	2.25
May	5.40	1.50	5.45	2.00	4.65	1.50	5.45	1.75	6.55	1.50	5.00	1.75	6.25	2.25
June	5.10	1.75	6.40	2.00	4.60	1.50	5.35	2.00	6.40	1.50	4.85	2.00	6.25	2.50
July	4.70	1.75	6.40	2.00	4.50	1.50	5.00	2.00	6.50	1.50	5.85	2.00	5.60	2.00
August	5.20	1.75	6.50	2.00	4.75	1.50	5.30	2.00	6.40	1.50	5.40	2.00	5.25	1.50
September	5.25	1.75	6.75	1.40	4.80	1.50	5.35	2.00	6.30	1.50	5.60	2.00	5.70	1.30
October	5.40	1.75	6.35	1.40	5.10	1.50	5.30	1.50	6.35	1.25	5.60	1.50	5.90	1.50
November	5.70	2.10	6.25	1.40	5.20	1.50	5.35	1.50	6.30	1.25	5.85	1.50	6.00	1.50
December	6.00	2.00	7.00	1.25	5.30	1.50	5.35	1.50	6.40	1.25	6.50	1.50	6.50	1.50

MONTHS.	1894[1]		1895[1]		1896[1]		1897[1]		1898[1]		1899[1]		1900[2]	
	High.	Low.	High.	Low.	High.	Low.	High.	Low.	High.	Low.	High.	Low.	High.	Low.
January	$6.00	$1.50	$5.95	$1.75	$5.05	$1.75	$5.40	$1.75	$5.60	$2.25	$6.30	$2.00	$6.60	$5.30
February	5.70	1.50	5.65	1.75	4.85	2.00	5.50	1.75	5.65	2.40	6.30	2.50	6.50	5.00
March	5.25	1.50	6.45	2.00	4.80	2.00	5.65	2.25	5.85	2.60	5.90	2.70	5.90	4.90
April	4.95	1.75	6.45	2.00	4.70	2.00	5.60	2.40	5.75	2.50	5.90	2.70	5.90	4.90
May	4.90	2.00	6.25	2.00	4.45	2.00	5.50	2.40	5.35	2.70	5.65	2.70	5.80	5.00
June	5.10	1.50	6.10	2.25	4.55	2.00	5.45	2.25	5.40	2.70	5.70	2.80	5.80	5.00
July	5.15	1.50	6.00	2.25	4.65	1.75	5.35	2.25	5.55	2.70	6.00	2.80	5.90	5.15
August	5.00	1.50	6.05	1.75	4.90	1.75	5.50	2.00	5.75	2.70	6.05	2.80	6.05	5.20
September	6.40	1.50	5.85	1.75	5.10	1.75	5.75	2.25	5.85	2.70	6.90	2.80	6.20	5.30
October	6.30	1.50	5.55	1.75	5.30	1.75	5.65	2.25	5.90	2.60	7.00	2.80	6.00	5.30
November	6.45	1.50	5.30	1.75	5.40	1.75	5.45	2.25	5.75	2.50	6.90	2.80	6.00	5.35
December	6.60	1.50	5.30	1.75	6.00	1.75	5.60	2.25	6.25	2.50	7.00	2.80	6.10	5.25

[1] Inferior to prime beeves.

[2] Good to extra steers.

COWS AND HEIFERS.

Number.—Prior to 1900 it was impossible to learn anything of a definite character concerning what may be called the breeding possibilities of cattle. There was no exact information concerning the number of cows and heifers of breeding age. The classification of cattle by sex and age in the present census places this information in the possession of the public. Table CXL summarizes, by geographic divisions, the cows and heifers on farms and ranges, and table CXLI presents the same facts for all cows and heifers in the United States, June 1, 1900. The information contained in these minor tables is derived from Table 28.

TABLE CXL.—NUMBER OF HEIFERS AND COWS ON FARMS AND RANGES, JUNE 1, 1900, WITH PERCENTAGES, BY GEOGRAPHIC DIVISIONS.

GEOGRAPHIC DIVISIONS.	Total.	Heifers 1 and under 2 years.	Dairy cows 2 years and over.	Other cows 2 years and over.	PER CENT.		
					Heifers.	Dairy cows.	Other cows.
The United States	35,915,732	7,183,916	17,139,674	11,592,142	20.0	47.7	32.3
North Atlantic	4,511,069	792,934	3,496,266	221,869	17.6	77.5	4.9
South Atlantic	2,458,639	433,240	1,383,319	642,080	17.6	56.3	26.1
North Central	15,101,579	3,325,231	8,490,284	3,286,064	22.0	56.2	21.8
South Central	9,232,960	1,721,326	2,899,236	4,612,398	18.6	31.4	50.0
Western	4,565,063	901,752	866,528	2,796,783	19.7	19.0	61.3
Hawaii and Alaska	46,422	9,433	4,041	32,948	20.3	8.7	71.0

TABLE CXLI.—NUMBER OF HEIFERS AND COWS ON FARMS AND RANGES AND ELSEWHERE IN THE UNITED STATES, JUNE 1, 1900, WITH PERCENTAGES, BY GEOGRAPHIC DIVISIONS.

GEOGRAPHIC DIVISIONS.	Total.	Heifers 1 and under 2 years.	Dairy cows 2 years and over.	Other cows 2 years and over.	PER CENT.		
					Heifers.	Dairy cows.	Other cows.
The United States	37,044,049	7,263,433	18,112,707	11,667,909	19.6	48.9	31.5
North Atlantic	4,698,061	806,358	3,665,685	226,018	17.2	78.0	4.8
South Atlantic	2,565,661	440,462	1,476,787	648,412	17.2	57.5	25.3
North Central	15,580,120	3,352,395	8,927,882	3,299,933	21.5	57.3	21.2
South Central	9,504,190	1,746,082	3,103,169	4,654,939	18.4	32.6	49.0
Western	4 649,595	908,793	935,143	2,805,659	19.6	20.1	60.3
Alaska and Hawaii	46,422	9,433	4,041	32,948	20.3	8.7	71.0

Of the 37,044,049 cows and heifers 1 year old and over in the United States, 15,580,120, or 42.1 per cent, were found in the North Central division; 9,504,190, or 25.7 per cent, in the South Central; 4,698,061, or 12.7 per cent, in the North Atlantic; 4,649,595, or 12.5 per cent, in the Western; 2,565,661, or 6.9 per cent, in the South Atlantic division; and 46,422, or 0.1 per cent, in Hawaii and Alaska. In the North Atlantic, North Central, and South Atlantic divisions, cows were used primarily for dairy purposes, while in the other two divisions, they were raised for breeding, and only incidentally for dairy purposes. These facts are brought out quite forcibly by the percentages of tables CXL and CXLI. Including the cows not on farms or ranges,

it is seen by table CLXI that a greater portion of the she-stock of the United States was utilized for dairy purposes rather than for breeding only, 489 cows being used for the first-named purpose to 315 for the latter. The proportion of dairy cows was largest in the North Atlantic division, where they numbered 780 to every 48 other cows, or about 16 to 1. This order was reversed in the South Central division, which had 326 dairy cows to 490 cows for breeding, a proportion of 2 to 3, and in the Western division there were only 201 dairy cows to 603 other cows, or 1 to 3. The smallest proportion of dairy cows was found in Hawaii, where they numbered 87 for every 710 other cows, or less than 1 to 8.

AVERAGE LIFE OF DAIRY COWS.

By comparing the number of heifers 1 and under 2 years old with that of all cows an estimate can be made of the average life of cows. In the North Atlantic states there were nearly five times as many cows as heifers 1 and under 2 years old. This would indicate that the average life of cows in that division was a little less than seven years, and that their average period of usefulness as milk producers was a little less than five years.

The average length of life of cows in the South Atlantic division was the same as that in the North Atlantic, the only variation between the two divisions being the greater number of cows kept for breeding and the smaller number used in dairying in the latter. In the North Central division the average length of life was less than six years, or over one year shorter, while that in the Western division and Hawaii was a trifle more.

RELATIVE NUMBERS OF COWS AND HEIFERS AND OTHER CATTLE.

Table CXLII shows the distribution of all neat cattle in the United States by three classes—steers, bulls, and cows and heifers. It gives also the proportionate number of steers and of bulls to 1,000 cows and heifers.

TABLE CXLII.—NUMBER OF STEERS, BULLS, COWS AND HEIFERS, 1 YEAR OLD AND OVER, ON FARMS AND RANGES AND ELSEWHERE IN THE UNITED STATES, AND THE NUMBER OF STEERS AND BULLS TO 1,000 COWS AND HEIFERS, JUNE 1, 1900, BY GEOGRAPHIC DIVISIONS.

GEOGRAPHIC DIVISIONS.	Steers.	Bulls.	Cows and heifers.	NUMBER TO 1,000 COWS AND HEIFERS.	
				Steers.	Bulls.
The United States	15,469,892	1,329,572	37,044,049	418	36
North Atlantic	387,933	204,735	4,698,061	83	44
South Atlantic	943,150	104,153	2,565,661	368	41
North Central	7,789,329	527,542	15,580,120	500	34
South Central	4,324,888	325,285	9,504,190	455	34
Western	1,986,436	167,026	4,649,595	427	36
Alaska and Hawaii	[1] 38,156	831	46,422	822	18

[1] Including 80 Chinese buffaloes and 47 working bullocks in Hawaii.

It will be noted that the proportion of steers to cows and heifers was especially high in the North Central division, where there were 500 steers for every 1,000 cows and heifers, and that it was lowest in the North Atlantic states, where there were only 83 steers for 1,000 cows and heifers. In the South Central division, the proportion was 455; in the Western, 427; and in the South Atlantic, 368.

The percentages of dairy cows given in tables CXL and CXLI present a statement of the dairy interests of the country; and the proportionate number of steers to 1,000 cows and heifers, as shown in table CXLII, indicates the relative importance of the beef industry in the several geographic divisions.

There were no very striking variations in the number of bulls to 1,000 cows. It was highest in the North Atlantic states, where the extensive dairying requires that constant attention be given to the raising of calves, and lowest in Hawaii, where cattle are kept in exceptionally large herds.

AVERAGE NUMBER OF NEAT CATTLE PER FARM.

Table CXLIII presents, by geographic divisions, the average number per farm of all neat cattle, and of each class, June 1, 1900.

TABLE CXLIII.—AVERAGE NUMBER OF SPECIFIED CLASSES OF NEAT CATTLE, JUNE 1, 1900, PER FARM REPORTING, BY GEOGRAPHIC DIVISIONS.

GEOGRAPHIC DIVISIONS.	All neat cattle.	Calves under 1 year.	Steers 1 and under 2 years.	Steers 2 and under 3 years.	Steers 3 years and over.	Bulls 1 year and over.	Heifers 1 and under 2 years.	Cows kept for milk.[1]	Cows not kept for milk.[1]
The United States	14.3	3.2	1.5	1.1	0.7	0.3	1.5	3.6	2.4
North Atlantic	10.7	2.1	0.3	0.2	0.1	0.4	1.3	5.9	0.4
South Atlantic	6.2	1.3	0.5	0.4	0.4	0.2	0.6	1.9	0.9
North Central	15.5	3.7	1.9	1.4	0.6	0.3	1.7	4.3	1.6
South Central	14.2	3.2	1.4	1.0	0.9	0.3	1.4	2.3	3.7
Western	44.6	9.3	4.8	3.5	2.1	0.9	4.7	4.6	14.7
Alaska	4.5	.....	.....	.....	1.0	0.3	.....	3.2	.....
Hawaii	236.0	40.2	34.6	28.7	29.2	1.9	21.6	9.2	75.6

[1] Two years and over.

The averages were largest in Hawaii and smallest in the South Atlantic division, where the average number of all neat cattle was less than one-seventh of that in the Western division.

LEADING CATTLE STATES.

Texas, with 9,428,196, led all states in the number of neat cattle. Of the other states reporting 3,000,000 or more, Iowa had 5,367,630; Kansas, 4,491,078; Nebraska, 3,176,243; and Illinois, 3,104,010. Three states reported over 1,000,000 dairy cows each: New York headed the list with 1,501,608; Iowa was second with 1,423,648; and Illinois third with 1,007,664. In the number of "other cows," Texas again led with 3,369,880, or more than twice the number reported by all the other states and territories of the South Central group, and more than in any other geographic division.

Texas reported 2,148,261 calves, and Iowa 1,290,279. No other state reported a million. Texas, as is indicated by the figures for cows and calves, ranked first in the breeding of neat cattle. They are shipped in large numbers to other states for feeding or fattening, consequently several states reported more 2 and 3 year old steers than Texas. Of steers 3 years old and over, Kansas reported 430,633; Indian Territory, 354,530; Texas, 341,286; and Oklahoma, 306,675. No other state reported 300,000. Many of the steers reported from Kansas, Indian Territory, and Oklahoma were bred in Texas. Of steers 2 and under 3 years, Iowa had the greatest number, 603,745; Texas, 593,603; Kansas, 530,461; Missouri, 363,775; and Nebraska, 317,360. The greater number of the steers in Iowa are sold between the ages of 2 and 3 years.

NUMBER OF NEAT CATTLE TO 100,000 ACRES OF FARM LAND.

Table 36 shows, by states and territories, the number of all neat cattle on farms and ranges to 100,000 acres of farm land. Table CXLIV presents a summary of these facts by geographic divisions.

TABLE CXLIV.—AVERAGE NUMBER OF ALL NEAT CATTLE, DAIRY COWS, AND OTHER NEAT CATTLE, TO 100,000 ACRES OF FARM LAND, JUNE 1, 1900, BY GEOGRAPHIC DIVISIONS.

GEOGRAPHIC DIVISIONS.	All neat cattle.	Dairy cows.	Other neat cattle.
The United States	8,063	2,038	6,025
North Atlantic	9,693	5,345	4,348
South Atlantic	4,249	1,326	2,923
North Central	9,649	2,675	6,974
South Central	6,934	1,125	5,809
Western	9,015	924	8,091
Alaska[1]	.....	.....	.....
Hawaii	3,943	154	3,789

[1] Alaska disregarded by reason of small number reported.

The number of neat cattle to 100,000 acres of farm land was substantially the same in the North Atlantic, North Central, and Western divisions, being 9,693, 9,649, and 9,015, respectively. These averages were materially above the corresponding figures for the South Central and South Atlantic divisions, 6,934 and 4,249, respectively. The high average in the Western division is due to the fact that the cattle in that section of the country are pastured on the public domain, which is not included in the farm area. The state lands of Texas are all leased to stockmen, and are reported as farm land, which explains the low average in the South Central division, of which Texas forms so important a part.

The average in the North Atlantic states is higher than in the more fertile North Central division, because in the former a comparatively small area of the land is used in the production of crops. The absence of good grazing lands in many parts of the South Atlantic group accounts for the low average there.

In the North Atlantic division the grazing land is largely utilized for dairy cows, and the number of such cows to 100,000 acres of land is twice that for the North Central, four times that for the South Atlantic and South Central, and nearly six times that for the Western division. The Western division had the largest number of "other neat cattle" in proportion to farm area, and the South Atlantic the smallest.

NEAT CATTLE NOT ON FARMS OR RANGES.

The statistics of neat cattle not on farms or ranges are found in Tables 37, 38, and 40. The total number of these animals, June 1, 1900, was 1,616,422, of which the dairy cows numbered 973,033, or 60.2 per cent, while, of the cattle on farms and ranges, the dairy cows constituted only 26.1 per cent. It will be seen by these totals that, excluding dairy cows, calves, and animals kept in barns or inclosures preparatory to slaughter, the number of neat cattle not on farms is comparatively insignificant.

Table 38 gives the average number of neat cattle to an inclosure. By geographic divisions the averages are as follows: North Atlantic, 1.6; South Atlantic, 1.9; North Central, 1.8; South Central, 2.7; and Western, 2.3.

Neat Cattle in Cities of over 25,000 Inhabitants.—Tables 41 and 42 present the statistics of neat cattle in cities of 25,000 inhabitants and over. All live-stock farms within the corporate limits of these cities are included under this classification. The steers reported were generally found in the yards connected with packing houses, distilleries, and kindred establishments,

where they were fattened for slaughter. The cows were kept mostly for milk.

Table 42 gives the number of each class of neat cattle to 100,000 persons in cities of over 25,000 inhabitants. There are many striking variations, dependent entirely upon the area of agricultural land within the cities, and upon stock-yard facilities.

VALUE OF NEAT CATTLE, JUNE 1, 1900.

Table 28 shows, by states and territories, the number and value of all classes of neat cattle and the total for each class. In Table 36 their number is given by counties. Tables 37 and 40 give the number of animals not on farms or ranges, by states, territories, and counties, and Table 26 gives, by geographic divisions and by states, a summary of all tables here mentioned, while Table 34 shows, by states and territories, the average value of the animals reported in Table 28. A brief summary of some of the most important facts in these tables was given in tables CXXXVI and CXXXVII, by classes of animals. The facts tabulated therein are presented, by geographic divisions, in the following table:

TABLE CXLV.—NUMBER AND VALUE OF ALL NEAT CATTLE ON FARMS AND RANGES, JUNE 1, 1900, WITH AVERAGES AND PER CENT, BY GEOGRAPHIC DIVISIONS.

GEOGRAPHIC DIVISIONS.	Number of neat cattle.	Value.	Average value.	PER CENT OF TOTAL.	
				Number.	Value.
The United States	67,822,336	$1,476,499,714	$21.77	100.0	100.0
North Atlantic	6,339,835	151,899,421	23.96	9.3	10.3
South Atlantic	4,431,750	66,321,262	14.97	6.5	4.5
North Central	30,621,413	752,903,887	24.59	45.2	51.0
South Central	17,870,663	313,370,582	17.54	26.3	21.2
Western	8,455,749	190,709,481	22.55	12.5	12.9
Alaska and Hawaii	102,926	1,295,081	12.58	0.2	0.1

The total value of all neat cattle on farms and ranges, June 1, 1900, was $1,476,499,714. The North Central states had a little over one-half, or 51.0 per cent of this value, although they reported but 45.2 per cent of the number of cattle. The variation in the two percentages is caused by the greater average value in those states, which was $24.59, the highest in the United States. Table CXLV shows a marked difference in the average value of neat cattle in the several geographic divisions, doubtless due in part to the greater use of pure-blooded animals in some divisions. These facts are given in detail in Tables 28 and 34, which show more marked contrasts than table CXLIII. They indicate the existence of a very well-defined area within which the original "native" or "scrub" stock has been but little improved by crossing with better animals. In this area it is doubtful whether the quality has not deteriorated in the last half century. A line drawn from the northeast corner of North Carolina to the northwest corner of Arkansas, thence south to the Gulf of Mexico will include to the south and east of it nearly all the territory in which "scrub" cattle were the rule.

The only other sections where cattle of this character predominated were parts of New Mexico and Arizona, where distance from market, limited transportation facilities, and poor soil seem to explain the slight attention paid to stock interests. Some poor herds owned by Indians contributed towards reducing the general average quality of the cattle in these territories. All other states and territories showed fair average values, and, in most cases, reported advances. In a few counties on the northern borders of the territory described, improved breeds have been introduced, and bulls, cows, and steers of fair average values were reported.

States with Largest Investments in Neat Cattle.—Texas led the list with reference to the total value of neat cattle, which was $163,228,904, June 1, 1900. The other states with neat cattle values exceeding $100,000,000, were Iowa with $142,518,902 and Kansas with $117,640,801. Of states with values exceeding $75,000,000, and less than $100,000,000, there were three: Nebraska, $82,469,498; Illinois, $82,170,907; and Missouri, $75,656,807. All of these states are included within the territory in which the native stock is being improved by crossing with animals of better grade.

Average Values.—For the United States the average value of all neat cattle, June 1, 1900, was $21.77. It was highest in the North Central states and lowest, omitting Hawaii and Alaska from consideration, in the South Atlantic states, being $24.59 in the former and $14.97 in the latter. Excluding Alaska, where unusual conditions made the value abnormal, the highest average, $37.26, was in the District of Columbia, and the lowest, $8.44, in Florida.

For the United States the average value of dairy cows was $29.68. It was highest in the Western division and lowest in the South Atlantic, being $35.43 in the former and $21.97 in the latter. Of the individual states, Alaska excluded, Montana reported the highest average, $41.89, and Florida the lowest, $13.31.

The states in the Western division are evidently doing more than any other section of the country to improve the grade of their cattle. This is shown not only by the high values of dairy cows, but more especially by the average price of bulls, $42.12, as compared with $15.26 for the South Atlantic states.

The average value of steers 3 years old was highest in the North Atlantic states, while those 2 and under 3 were worth most in the North Central division. These variations are explained by the fact that in the North Atlantic division, relatively more work oxen were kept than in other divisions, while in the North Central states were found the greatest relative number of well-bred steers, which are fattened for market before reaching 3 years of age. The large number of work oxen in Alabama explains the wide variation in the average values of 2 and 3 year old steers in that state. The average value of 2-year-olds was only $9.76, while 3-year-olds were worth $20.56 per head. This fact accounts also for the variation in average value of these two classes of steers in both the North and South Atlantic divisions.

RESULTS OF INTRODUCING BLOODED STOCK.

The variations in the average values presented in Table 34 are forcible illustrations of the beneficial results of the introduction of improved breeds of cattle. Attention is called especially to Iowa and Texas. In Iowa the improvement of cattle has been intelligently pursued for many years, while in Texas efforts were begun at a more recent date, owing to the fact that large numbers of blooded stock of earlier importations from other states fell victims to the Texas cattle fever. The danger from this disease has now been measurably overcome by inoculating all imported cattle.

Iowa had 5,367,630 neat cattle, including calves; Texas had 9,428,196, or nearly twice as many. The value of the Iowa cattle was $142,518,902, and of those of Texas, $163,228,904, or only 14.5 per cent more. The average per head for the Texas cattle was $17.31, while that for Iowa was $26.55, or 53.4 per cent greater. Because of this difference, the Iowa farmer can feed corn to his steers and derive a greater income from his high-priced land than the Texan, notwithstanding cheap pastures and minimum labor and expense for cultivation and improvements. That Texas ranchmen have begun to realize this fact, and are striving to improve their herds by introducing pure-blooded bulls, may be seen by comparing the average values in the following table:

TABLE CXLVI.—AVERAGE VALUE OF SPECIFIED CLASSES OF NEAT CATTLE IN IOWA AND TEXAS, JUNE 1, 1900, AND THE PER CENT OF EXCESS OF THE AVERAGES IN IOWA.

CLASSES.	Iowa.	Texas.	Per cent of Iowa over Texas.
All neat cattle	$26.55	$17.31	53.4
Calves, under 1 year	11.17	9.09	22.9
Steers, 1 and under 2 years	24.16	14.63	65.1
Steers, 2 and under 3 years	39.13	20.39	91.9
Steers, 3 years and over	54.97	27.17	102.3
Bulls, 1 year and over	47.32	40.48	16.9
Cows, not kept for milk, 2 years and over	31.05	19.78	57.0

It will be noted that the average value of bulls was only 16.9 per cent greater in Iowa than in Texas, while that of breeding cows showed an excess of 57.0 per cent in favor of Iowa. Even more marked variations were found in the average values for steers 2 and 3 years old. Calves, however, showed a much smaller variation, the excess in favor of Iowa being only 22.9 per cent. The high value of Texas calves was partially due to their special importance on the range, but comparison of their average value with that of other neat cattle indicated a general tendency towards a better grade of stock in that state. In 1910 the statistics for Texas will doubtless show the results of the present efforts in this direction by a much greater average value of neat cattle.

Wyoming and Washington, better than any other two states, show the effects of the introduction of blooded bulls, so far as young stock is concerned, as may be seen by the figures of Table 34. Dairy cows in Washington were worth $38.01; in Wyoming, $39.44. Other cows in the former state were worth $29.50, and, in the latter, $32.39, thus showing but small variations. Steers 3 years old had average values of $36.38 and $40.06, respectively. The average value of bulls in Washington was $36.03, as against $69.12 in Wyoming. The very high average for these animals in Wyoming indicates the strength of the movement to improve the herds, and its results are apparent in the average values of calves, which were $14.11 for Wyoming, and only $8.46 for Washington.

NEAT CATTLE ON FARMS OF SPECIFIED AREAS.

Table 32 presents a statement of the number of neat cattle and other animals on farms of specified areas, together with the number of farms. Briefer summaries of the same data are contained in tables CXLVII and CXLVIII.

TABLE CXLVII.—TOTAL AND AVERAGE NUMBER OF NEAT CATTLE, JUNE 1, 1900, ON FARMS OF SPECIFIED AREAS, WITH PERCENTAGES.

FARMS CLASSIFIED BY AREA IN ACRES.	Number of farms.	Farms reporting neat cattle.	Per cent of all farms reporting cattle.	Number of neat cattle.	Per cent of all cattle in group.	Average number of neat cattle per farm reporting.
Total	5,739,657	4,730,920	82.4	67,822,336	100.0	14.3
Under 3	41,882	20,168	48.2	821,076	1.2	40.7
3 and under 10	226,564	117,012	51.6	358,845	0.5	3.1
10 and under 20	407,012	233,955	57.5	741,238	1.1	3.2
20 and under 50	1,257,785	891,871	70.9	3,624,863	5.4	4.1
50 and under 100	1,366,167	1,195,876	87.5	8,025,684	11.8	6.7
100 and under 175	1,422,328	1,302,556	91.6	15,604,986	23.0	12.0
175 and under 260	490,104	466,764	95.2	8,349,153	12.3	17.9
260 and under 500	377,992	360,511	95.4	10,333,550	15.3	28.7
500 and under 1,000	102,547	97,839	95.4	5,357,687	7.9	54.8
1,000 and over	47,276	44,368	93.8	14,605,314	21.5	329.2

TABLE CXLVIII.—NUMBER OF FARMS REPORTING DAIRY AND OTHER COWS, AND NUMBER OF COWS AND OTHER CATTLE REPORTED IN THE UNITED STATES, JUNE 1, 1900, ON FARMS OF SPECIFIED AREAS.

FARMS CLASSIFIED BY AREA IN ACRES.	DAIRY COWS.		OTHER COWS.		ALL OTHER NEAT CATTLE.
	Farms reporting.	Number.	Farms reporting.	Number.	Number.
Total	4,514,210	17,139,674	979,234	11,592,142	39,090,520
Under 3	17,778	66,632	3,624	254,728	499,716
3 and under 10	105,944	184,249	8,820	38,886	135,710
10 and under 20	210,723	350,018	20,841	72,520	318,700
20 and under 50	829,096	1,632,554	98,280	305,827	1,686,422
50 and under 100	1,150,208	3,434,232	176,014	542,083	4,049,419
100 and under 175	1,264,695	5,467,996	303,014	1,649,112	8,487,878
175 and under 260	454,210	2,653,287	144,049	821,299	4,874,627
260 and under 500	349,491	2,286,647	143,112	1,573,428	6,473,475
500 and under 1,000	92,684	688,815	50,738	1,192,819	3,476,053
1,000 and over	39,381	375,244	30,742	5,141,550	9,088,520

The average number of neat cattle per farm was lowest for the two groups containing 3 and under 10 acres, and 10 and under 20 acres. The average of the groups with larger areas increased in a more or less regular series to the farms with the greatest areas.

Farms under 3 acres had a very high average value, due largely to the use of the public domain or unfenced lots in cities, to which attention was called in the discussion of table XLIV. The total number of cattle reported on farms of less than 3 acres was 821,076, and the number of such farms was 20,168. Of this number, 3,146 were in the North Atlantic division; 2,439, in the South Atlantic; 6,922, in the North Central; 4,306, in the South Central; and 3,342, in the Western. The aggregate number of cattle on such farms in the North Atlantic, North Central, and South Atlantic states was 201,378, or an average of 16.1 per farm. The average for the South Central division was 45.8, and for the Western, 126.4.

In all of the five divisions, with the exception of the North Atlantic, some of these small farms were described as cattle ranches, the live stock of which was kept wholly on public lands. The greatest number of such ranches was in the Western division, and the smallest, in the South Central. In the Western division, exclusive of the 3,342 farms of this class, all ranch cattle were kept, in part at least, on lands properly classed as farms, establishments with considerable areas of land used for agricultural purposes.

The total number of cattle on the ranches without land owned or leased, or with less than 3 acres owned or leased, in the Western division, was 422,412, or barely 5 per cent of the total number in those states. The exclusive range farm is, therefore, a vanishing quantity, as the cattlemen in the West are requiring land on which they raise forage and make provision to care for the cows and weaker animals in winter. Thus they are progressively reducing the losses from winter exposure and changing seasons. No single fact so forcibly demonstrates this change as the figures last given, showing that only 5.0 per cent of the cattle in the great range states are kept exclusively upon the public domain. This demonstrates the wisdom of enumerating the cattle in the West in the same manner as in the East, and of treating these ranches as farms.

NEAT CATTLE ON FARMS OF SPECIFIED PRINCIPAL SOURCES OF INCOME.

The complete statistics of all domestic animals on farms of specified principal sources of income are presented in Table 33. Summaries of these facts for neat cattle are given in tables CXLIX and CL.

TABLE CXLIX.—TOTAL AND AVERAGE NUMBER OF NEAT CATTLE, JUNE 1, 1900, ON FARMS OF SPECIFIED PRINCIPAL SOURCES OF INCOME, WITH PERCENTAGES.

FARMS CLASSIFIED BY PRINCIPAL SOURCE OF INCOME.	Number of farms.	Farms reporting neat cattle.	Per cent of all farms reporting cattle.	Number of neat cattle.	Per cent of all cattle in group.	Average number of neat cattle per farm reporting.
Total	5,739,657	4,730,920	82.4	67,822,336	100.0	14.3
Hay and grain	1,319,856	1,047,593	79.4	11,224,353	16.6	10.7
Vegetables	155,398	98,055	62.9	585,187	0.9	6.0
Fruits	82,176	52,613	64.0	300,835	0.4	5.7
Live stock	1,564,714	1,458,589	93.2	38,728,588	57.1	26.6
Dairy produce	357,578	357,578	100.0	6,167,267	9.1	17.2
Tobacco	106,272	82,085	77.2	362,293	0.5	4.4
Cotton	1,071,545	709,649	66.2	3,853,754	5.7	5.4
Rice	5,717	3,554	62.2	33,242	(1)	9.4
Sugar	7,344	5,060	68.9	71,182	0.1	14.1
Flowers and plants	6,159	997	16.2	2,286	(1)	2.3
Nursery products	2,029	895	44.1	4,581	(1)	5.1
Taro	441	29	6.6	519	(1)	17.9
Coffee	512	98	19.1	2,075	(1)	21.2
Miscellaneous	1,059,416	914,125	86.3	6,486,174	9.6	7.1

[1] Less than one-tenth of 1 per cent.

TABLE CL.—NUMBER OF FARMS REPORTING DAIRY AND OTHER COWS, AND NUMBER OF COWS AND OTHER CATTLE REPORTED IN THE UNITED STATES, JUNE 1, 1900, ON FARMS OF SPECIFIED PRINCIPAL SOURCES OF INCOME.

FARMS CLASSIFIED BY PRINCIPAL SOURCE OF INCOME.	DAIRY COWS.		OTHER COWS.		ALL OTHER NEAT CATTLE.
	Farms reporting.	Number.	Farms reporting.	Number.	Number.
Total	4,514,210	17,139,674	979,234	11,592,142	39,090,520
Hay and grain	1,002,261	3,553,322	208,172	1,143,457	6,527,574
Vegetables	90,244	226,004	13,632	87,303	271,880
Fruits	49,871	110,168	5,896	41,447	149,220
Live stock	1,409,343	5,852,815	389,682	8,863,065	24,012,708
Dairy produce	357,578	3,421,738	57,180	313,927	2,431,607
Tobacco	73,623	145,097	7,264	17,483	199,713
Cotton	644,614	1,315,491	147,691	525,236	2,013,027
Rice	2,652	7,340	1,157	6,546	19,356
Sugar	4,624	14,989	1,171	13,624	42,569
Flowers and plants	910	1,544	88	159	583
Nursery products	809	2,121	86	248	2,212
Taro	20	60	14	120	330
Coffee	85	434	35	446	1,195
Miscellaneous	877,576	2,488,556	147,171	579,072	3,418,546

The largest average numbers of cattle were found on the live-stock and dairy farms, being 26.6 and 17.2, respectively. Hay and grain, rice, and sugar farms also had relatively large numbers. Only 66.2 per cent of the cotton farms reported neat cattle.

NEAT CATTLE ON FARMS CLASSIFIED BY TENURE.

The number of neat cattle of specified classes on farms of each tenure, is presented in Table 29, by geographic divisions. Similar information for farms of white and colored farmers is presented in Tables 30 and 31. A summary of a few important facts from Table 29 is given in tables CLI and CLII.

TABLE CLI.—TOTAL AND AVERAGE NUMBER OF NEAT CATTLE, JUNE 1, 1900, ON FARMS OF SPECIFIED TENURES, WITH PERCENTAGES.

FARMS CLASSIFIED BY TENURE.	Number of farms.	Farms reporting neat cattle.	Per cent of all farms reporting cattle.	Number of neat cattle.	Per cent of all cattle in group.	Average number of neat cattle per farm reporting.
Total	5,739,657	4,730,920	82.4	67,822,336	100.0	14.3
Owners	3,149,344	2,782,106	88.3	36,197,278	53.4	13.0
Part owners	451,515	412,577	91.4	10,024,178	14.8	24.3
Owners and tenants	53,299	49,674	93.2	726,141	1.0	14.6
Managers	59,213	47,402	80.1	7,791,873	11.5	164.4
Cash tenants	752,920	542,190	72.0	5,972,989	8.8	11.0
Share tenants	1,273,366	896,971	70.4	7,109,877	10.5	7.9

TABLE CLII.—NUMBER OF FARMS REPORTING DAIRY AND OTHER COWS AND NUMBER OF COWS AND OTHER CATTLE REPORTED IN THE UNITED STATES, JUNE 1, 1900, ON FARMS OF SPECIFIED TENURES.

FARMS CLASSIFIED BY TENURE.	DAIRY COWS.		OTHER COWS.		ALL OTHER NEAT CATTLE.
	Farms reporting.	Number.	Farms reporting.	Number.	Number.
Total	4,514,210	17,139,674	979,234	11,592,142	39,090,520
Owners	2,675,191	10,459,262	605,699	5,193,284	20,614,732
Part owners	399,593	1,734,648	109,638	2,203,826	6,085,704
Owners and tenants	48,323	207,162	13,129	91,385	427,594
Managers	42,995	295,794	14,699	2,673,750	4,822,329
Cash tenants	497,288	1,823,713	97,102	819,552	3,329,724
Share tenants	850,820	2,619,095	138,967	680,345	3,810,437

A greater proportion of the farms in the United States operated by "owners and tenants" reported neat cattle than was the case with farms of any other tenure. The per cent of such farms with neat cattle was 93.2. The corresponding per cent for farms of "part owners" was 91.4; "owners," 88.3; "cash tenants," 72.0; "managers," 80.1, and "share tenants," 70.4. The low per cent for farms operated by managers is attributable to the fact that, in the Western division, a large number of such farms reported sheep, but no neat cattle, while in the South many cotton plantations in charge of managers had no cattle.

Farms of managers reported the largest number of cattle to a farm, due to the fact that many of the largest cattle ranches in the West and Southwest belong to this class. Such ranches had but few dairy cows, which explains why the number of dairy cows on farms of managers, as given in table CLII, was relatively small. A similar condition existed on the large farms of part owners, but all other classes of farms reported relatively more dairy cows than other cows. Owners and tenants reported the smallest number of cattle, and

the share tenants, the smallest average number per farm. The owners of farms with large numbers of cattle evidently prefer to operate them by the aid of salaried managers under their own direction than to entrust them to tenants.

NEAT CATTLE ON FARMS OF WHITE AND COLORED FARMERS.

Tables 30 and 31 present in detail, by geographic divisions, and by race and tenure, the statistics of all domestic animals on farms. A summary of a few of the most important facts of these tables is given in tables CLIII and CLIV.

TABLE CLIII.—TOTAL AND AVERAGE NUMBER OF NEAT CATTLE ON FARMS OF WHITE AND COLORED FARMERS, JUNE 1, 1900, WITH PERCENTAGES, BY GEOGRAPHIC DIVISIONS.

A.—FARMS OF WHITE FARMERS.

GEOGRAPHIC DIVISIONS.	Number of farms.	Farms reporting neat cattle.	Per cent of all farms reporting cattle.	Number of neat cattle.	Per cent of all cattle in group.	Average number of neat cattle per farm reporting.
The United States.	4,970,129	4,318,520	86.9	65,888,222	100.0	15.3
North Atlantic	675,366	591,163	87.5	6,332,256	9.6	10.7
South Atlantic	673,354	558,131	82.9	3,999,816	6.1	7.2
North Central	2,179,667	1,965,498	90.2	30,505,055	46.3	15.5
South Central	1,206,367	1,017,103	84.3	16,605,260	25.2	16.3
Western	234,854	186,384	79.4	8,378,790	12.7	45.0
Alaska and Hawaii	521	241	46.3	67,045	0.1	278.2

B.—FARMS OF COLORED FARMERS.

The United States.	769,528	412,400	53.6	1,934,114	100.0	4.7
North Atlantic	2,140	1,278	59.7	7,579	0.4	5.9
South Atlantic.....	288,871	156,263	54.1	431,934	22.3	2.8
North Central	16,900	10,316	61.0	116,358	6.0	11.3
South Central	451,799	241,051	53.4	1,265,403	65.4	5.2
Western	8,054	3,293	40.9	76,959	4.0	23.4
Alaska and Hawaii	1,764	199	11.3	35,881	1.9	180.3

TABLE CLIV.—NUMBER OF FARMS OF WHITE AND COLORED FARMERS IN THE UNITED STATES, JUNE 1, 1900, THE NUMBER REPORTING NEAT CATTLE, AND THE NUMBER OF SPECIFIED KINDS OF SUCH CATTLE, WITH PERCENTAGES AND AVERAGES.

ITEMS.	White farmers.	Colored farmers.
Number of farms	4,970,129	769,528
Number of farms, percentages	86.6	13.4
Number of farms reporting cattle	4,318,520	412,400
Number of farms reporting cattle, percentages	91.3	8.7
Number of neat cattle reported	65,888,222	1,934,114
Number of neat cattle reported, percentages	97.1	2.9
Number of neat cattle reported, averages	15.3	4.7
Number of dairy cows reported	16,559,766	579,908
Number of dairy cows reported, percentages	96.6	3.4
Number of dairy cows reported, averages	3.8	1.4
Number of other cows reported	11,303,369	288,773
Number of other cows reported, percentages	97.5	2.5
Number of other cows reported, averages	2.6	0.7
Number of other cattle reported	38,025,087	1,065,433
Number of other cattle reported, percentages	97.3	2.7
Number of other cattle reported, averages	8.8	2.6

Of the 4,970,129 farms of white farmers, 4,318,520, or 86.9 per cent, had neat cattle, while these animals were reported by only 412,400, or 53.6 per cent, of the 769,528 farms of colored farmers. This difference in proportion finds explanation in the following facts: A large proportion of the negroes, who constitute the great majority of the colored farmers, are found in the South Atlantic division, which reported a smaller proportion of live stock for both white and colored farmers than any other geographic division. Furthermore, the conditions under which the majority of negroes in cotton states operate their farms cause them to devote their entire attention to the raising of cotton and corn, the limited area of their farms making the keeping of cattle impracticable, if not impossible. It must be borne in mind also that the negro has been an independent farmer for a comparatively short period. Taking all of these circumstances into consideration, the per cent of colored farmers possessing neat cattle indicates a most remarkable progress.

The great majority of the colored farmers who reported cattle, especially in the South, had dairy cows only. In the South Atlantic states, of the 156,263 colored farmers reporting neat cattle, 121,401, or 77.7 per cent, reported dairy cows; 23,717, or 15.2 per cent, reported other cows; and the remainder, young stock or working oxen. Many of the cows classified as not kept for milk were doubtless incorrectly reported, and should be classed as dairy cows. The average number of neat cattle to a farm reporting such animals was 15.3 for white farmers and 4.7 for colored farmers.

In the Western division nearly all of the colored farmers reporting cattle were Indians, and many of the neat cattle reported by colored farmers in the South Central division belonged to the Indians of Oklahoma and Indian Territory. But for neither the Western nor South Central divisions do the figures in Tables 30 and 31 give a complete statement in every case of the holdings of cattle by white and colored farmers. In the South, some colored managers cared for farms of white owners, and the stock on such farms is included in Table 31 with that of colored farmers. The total number of cattle on such farms was 93,333, or less than 5 per cent of the total number reported by colored farmers. Greater proportional errors of the opposite character are found, caused by the fact that on some Indian reservations there were large holdings of cattle cared for by salaried white managers, which appear in Table 30 as on the farms of white managers. The number of such cattle exceeded 50,000, and had a value of more than $1,000,000, of which over one-half was reported by South Dakota.

The neat cattle of colored farmers in Hawaii belong to Hawaiians and part Hawaiians, and not to negroes.

COMPARABILITY OF CENSUS STATISTICS OF NEAT CATTLE.

The inquiries on the farm schedules relating to domestic animals were framed with the main object in view of securing a complete enumeration and uniform classification of all live stock.

The question of whether all, or any, of the young live stock born in the spring of the census year were included with the number of neat cattle in previous census reports has heretofore been left in doubt, but it is believed that the age and sex classifications adopted for 1900 fully remove all doubt with reference to this subject as far as the Twelfth Census is concerned. With these uncertainties removed, the question arises as to the comparability of the statistics here given with those for preceding census years. That the public may have all available data for answering this question, the exhibits of the census inquiries relating to agriculture as used from 1850 to 1900, inclusive, together with the instructions to the enumerators, are presented elsewhere in this volume.

From those schedules and instructions, it is certain that no calves, colts, or lambs less than 1 year old were enumerated in 1850, since those collecting the data in that year from the farmers were given the following instructions:

Under general heading, "Stock, 1st June, 1850," of the whole number of animals which belong to the farm on the 1st day of June, the number of each description thereof is to be inserted under the proper headings, taking care that under heading "Other cattle," you insert the number of all cattle not before enumerated, which are 1 year old and older.

11. The number of all sheep which were on said date of 1 or more years old is to be inserted in column 11.

From 1860 to 1890, inclusive, the enumerators received no instructions with reference to the subject. It was left to their individual judgment, or that of the farmers, whether or not calves, colts, or lambs should be returned under the head of "other cattle," "horses," "mules," or "sheep," or omitted from the enumeration. Under such circumstances it becomes almost certain that there was no uniformity of reports. The young animals less than 1 year old on some farms would be omitted, and on others reported. This would be equally the case with calves, colts, and lambs since the form of the schedules and the inquiries thereon suggest the same methods of reporting the young of all animals.

The schedules for 1890 give internal evidence of the report of lambs as sheep in that year. Those schedules called for reports of the number of sheep on hand June 1 of that year and of the number of fleeces shorn that spring and in the preceding fall. For all sections great numbers of schedules are found on which the reports of sheep and fleeces indicate the inclusion of spring lambs of 1890 with the sheep of that year. Even the limited time that could be given to this investigation made it certain that not less than 10 and possibly 15 per cent of the "sheep" of 1890 were lambs less than 1 year old.

This conclusion, deduced from a critical examination of many schedules of 1890, is strengthened by comparing the number of lambs dropped in 1889 as reported by the Eleventh Census with the number of lambs on hand, June 1, 1900. The lambs dropped in 1889 constituted 35.1 per cent of the sheep reported on hand June 1, 1890, while the lambs reported on hand June 1, 1900, constituted 54.3 per cent of the sheep 1 year old and over. Changes in the breed of sheep and special conditions in the two years doubtless exerted great influence in increasing the per cent of lambs, as will be mentioned later in detail; but, after allowing for all such changes, the two percentages can be harmonized only by assuming that the per cent of 1890 was low by reason of the inclusion of some lambs with the enumerated sheep. These references to sheep and lambs are made in this connection because there is the same reason for believing that in 1890 calves and colts were reported as other cattle and horses, mules, and asses as for believing that lambs were reported as sheep. Consequently the same allowance should be made for the inclusion of animals less than 1 year old in all figures for live stock, as reported by the census of 1890.

STATISTICS OF NEAT CATTLE IN 1900 AND IN PRECEDING YEARS COMPARED.

The census of 1890 had two classifications of neat cattle. One was for the enumeration of cattle on farms in all states, and on the ranges in Idaho, Oregon, and Washington. The numbers reported under this classification were as follows: Working oxen, 1,117,494; milch cows, 16,511,950; other cattle, 33,734,128; a total of 51,363,572; and calves dropped in 1889, 14,538,327.

The second classification applied to animals on ranges in states and territories other than Idaho, Oregon, and Washington. The numbers reported were as follows: 4-year-olds, 535,869; 3-year-olds, 784,797; 2-year-olds, 999,363; yearlings, 1,209,731; dry cows, 795,572; and "cows and calves," 1,959,888. The total number of neat cattle reported on farms and ranges under the two classifications was 57,648,792.

The facts above reviewed relating to the schedules of 1890 and the inclusion of lambs in the reports for that year make it very probable that a portion of the calves less than 1 year old, June 1, 1890, were reported in that year as "other cattle." Those facts make it probable, also, that at least 10 and possibly 20 per cent of the "other cattle" reported in 1890 were calves less than 1 year old. The probable number of such young animals enumerated in 1890 as neat cattle was, therefore, not less than 3,373,413, and may have

equaled 6,746,825. Under these circumstances the only comparisons that can be made between the figures for neat cattle in 1900 and in 1890 must be of the number of such animals exclusive of calves. This was 52,489,237. If the number of calves included in the enumeration of other cattle in 1890 was 3,373,413, the number of neat cattle, exclusive of calves, decreased in ten years from 54,275,379 (the number of all cattle as reported in 1890 less 3,373,413) to 52,489,237, or a loss of 3.3 per cent. If the number of calves included with other cattle in 1890 equaled 20 per cent of other cattle and thus numbered 6,746,825, the number of neat cattle exclusive of calves increased from 50,901,967 to 52,489,237, or 3.1 per cent. There was, therefore, no great increase in the total number of neat cattle in the country from 1890 to 1900, and there may have been a slight decrease. During that decade the population increased 20.7 per cent, and thus the relative number of neat cattle, as compared with population, decreased to nearly that extent.

The estimates of the number of range animals in 1880 and 1890 are given in table CLV. The census authorities in 1860 secured estimates of the number of cattle on ranges and in cities and towns, as presented in Table 39. These are not used in this connection, as they were made on a basis altogether different from those of 1880 and 1890.

TABLE CLV.—NUMBER OF UNENUMERATED RANCH NEAT CATTLE IN 1880 AND 1890, AS ESTIMATED BY THE TENTH AND ELEVENTH CENSUSES.

STATES AND TERRITORIES.	1880	1890
Total	3,750,022	6,285,220
Arizona	90,774	659,758
California	150,797	241,300
Colorado	444,653	448,681
Florida	91,025	.....
Idaho	106,290	.....
Indian Territory	487,748	433,580
Kansas	82,076	.....
Montana	255,892	750,619
Nebraska	354,697	.....
Nevada	44,602	.....
New Mexico	181,235	1,054,022
Oregon	181,778	.....
Public lands[1]	58,450	.....
South Dakota[2]	65,968	20,033
Texas	810,093	2,342,083
Utah	37,239	78,047
Washington	63,630	.....
Wyoming	243,140	248,097

[1] Region north of the Panhandle of Texas not included in the state or territorial government.
[2] Dakota territory prior to 1890.

In table CLVI are presented, by states and territories, the number of neat cattle in 1900, exclusive of calves, and the numbers in 1880 and 1890, together with the estimated value of the cattle on ranges in those years. The number of animals is, in all cases, given in thousands. The table giving the number of animals presents also the percentages of gain or loss in the several states and territories, as indicated on the face of the returns. Those percentages for 1890–1900 do not take account of the calves that were enumerated as "other cattle" in 1890, and to which attention has been called. They show the relative changes among the different states, but to the extent of this inclusion of calves as other cattle in 1890 they fail to record the real changes in the number of all cattle in the decade. As stated, the animals enumerated on farms and the estimated number of those on ranges are included. The comparison is not carried back further than 1880, since there were no separate estimates of range cattle prior to that time.

TABLE CLVI.—NUMBER OF NEAT CATTLE, EXCLUSIVE OF CALVES, EXPRESSED IN THOUSANDS, AND PER CENT OF INCREASE AND DECREASE BY STATES AND TERRITORIES: SUMMARY 1880 TO 1900.

STATES AND TERRITORIES.	1900	1890	1880	Per cent of increase, 1880 to 1890.	Per cent of decrease, 1890 to 1900.
The United States	52,489	57,649	39,676	45.3	8.9
North Atlantic division	5,082	5,462	5,797	[1]5.8	7.0
Maine	277	299	334	[1]10.6	7.4
New Hampshire	187	223	232	[1]4.1	16.4
Vermont	400	395	403	[1]1.9	[2]1.3
Massachusetts	242	256	261	[1]1.9	5.4
Rhode Island	31	35	36	[1]2.8	11.7
Connecticut	180	204	237	[1]14.0	11.7
New York	2,089	2,131	2,340	[1]8.9	2.0
New Jersey	200	212	224	[1]5.8	5.5
Pennsylvania	1,476	1,707	1,730	[1]1.4	13.5
South Atlantic division	3,490	3,890	3,952	[1]1.6	10.3
Delaware	45	52	54	[1]3.2	13.6
Maryland	237	267	268	1.8	11.2
District of Columbia	1	1	2	[1]36.9	[2]41.0
Virginia	663	747	686	8.9	11.2
West Virginia	506	566	458	23.5	10.7
North Carolina	482	631	657	[1]4.0	23.6
South Carolina	255	268	364	[1]26.2	4.9
Georgia	688	874	910	[1]4.0	21.3
Florida	613	484	558	[1]13.4	[2]26.7
North Central division	23,310	24,602	15,834	55.4	5.3
Ohio	1,559	1,763	1,860	[1]5.2	11.6
Indiana	1,256	1,512	1,364	10.9	16.9
Illinois	2,381	3,063	2,384	28.5	22.3
Michigan	1,001	1,047	892	17.4	4.4
Wisconsin	1,691	1,648	1,129	45.9	[2]2.6
Minnesota	1,305	1,374	659	108.4	5.0
Iowa	4,077	4,895	2,612	87.4	16.7
Missouri	2,345	2,970	2,081	42.7	21.0
North Dakota	501	282	207	383.0	[2]77.7
South Dakota	1,204	717	.....		[2]67.9
Nebraska	2,422	2,143	1,113	92.5	[2]13.0
Kansas	3,568	3,188	1,533	107.9	[2]11.9
South Central division	13,823	14,500	9,716	49.2	4.7
Kentucky	833	1,066	844	26.3	21.9
Tennessee	676	965	784	23.2	30.0
Alabama	586	876	751	16.6	33.1
Mississippi	635	915	717	27.5	30.6
Louisiana	500	581	471	23.5	13.9
Texas	7,280	8,544	4,895	74.5	14.8
Oklahoma	1,410	127	58	.....	([3])
Indian Territory	1,263	433	488	.....	([3])
Arkansas	640	993	708	40.2	35.5

[1] Increase. [2] Decrease. [3] Incomplete reports.

TABLE CLVI.—NUMBER OF NEAT CATTLE, EXCLUSIVE OF CALVES, EXPRESSED IN THOUSANDS, AND PER CENT OF INCREASE AND DECREASE BY STATES AND TERRITORIES: SUMMARY 1880 TO 1900—Continued.

STATES AND TERRITORIES.	1900	1890	1880	Per cent of increase 1880 to 1890.	Per cent of decrease 1890 to 1900.
Western division	6,699	9,195	4,377	110.1	27.1
Montana	781	1,442	428	236.8	45.9
Wyoming	561	934	521	79.2	40.0
Colorado	1,164	1,167	792	47.4	0.2
New Mexico	803	1,632	348	368.9	50.8
Arizona	607	928	136	583.5	34.5
Utah	265	278	133	109.8	4.9
Nevada	304	211	217	[2]2.7	144.2
Idaho	277	219	191	14.8	[1]26.3
Washington	290	255	198	28.7	[1]13.6
Oregon	532	521	598	[2]12.9	12.2
California	1,115	1,608	815	97.3	30.7
Alaska and Hawaii [3]	85	.....	.....	.....	.....

[1] Increase. [2] Decrease. [3] No report prior to 1900.

With regard to the statistics for Oklahoma and Indian Territory, the fact should be borne in mind that Oklahoma was practically unsettled in 1890, having been organized as a territory less than a month before the census enumeration, and that the returns of cattle on Indian reservations did not state whether the animals reported were those of Indians or included all the cattle within the Indian reservations of Oklahoma and Indian Territory. Consideration should be given also to the fact that the larger portion of the animals reported from these territories and great numbers of those reported from Texas were included in estimates and not reported by the enumerators.

The large increase in the number of "neat cattle" in Florida was undoubtedly due to the fact that range cattle, of which there were large numbers in that state, were not enumerated in 1890, nor estimates secured of their number, as was done in 1880.

INCREASE IN THE NUMBER OF DAIRY COWS.

The decrease noted in the number of all neat cattle has not been accompanied by a decrease in the number of dairy cows, and probably not in that of "other cows" The dairy cows of the United States, June 1, 1900, numbered 18,112,707. Of this number, 17,139,674, or 94.6 per cent, were on farms and ranges, and 973,033, or 5.4 per cent, were in barns and inclosures elsewhere. The number of milch cows on farms and ranges in 1900 exceeded that reported in 1890 by 627,724, or 3.8 per cent. In the North Atlantic states, the per cent of excess was 4.3; in the South Atlantic states, 1.0; in the North Central states, 3.0; in the South Central states, 2.4; and in the Western states and territories, 20.2. In all of these geographic divisions the designation "milch cows" used in the enumeration of 1890 had a meaning quite different from the phrase "kept for milk," employed in 1900 in designating dairy cows. In the North Atlantic division the enumerators in 1890 unquestionably reported under the designation "milch cows" cows not kept for milk, as well as those kept for milk, while in 1900 they were separated into two classes. A comparison of the number of milch cows in 1880 and in 1890, with the total number of dairy and other cows in 1900, indicates an increase in this geographic division in what were designated "milch cows" ten years ago, from 3,351,061 to 3,718,135, or 11.0 per cent.

For Texas and other states where similar conditions prevail, it is very difficult to make any comparison between the figures for 1890 and those for 1900. The "milch cows" reported in Texas in 1890 numbered 1,003,439, while the cows "kept for milk" reported in 1900 numbered only 861,023. This apparent decrease was accompanied by an increase in the number of farms from 228,126 to 352,190, or 54.4 per cent. This increase, in all probability, measures the actual increase in the dairy interests in Texas. The large number of milch cows reported in 1890 must have included at least 50 per cent of cows that were not, in any strict sense of the word, dairy cows. This fact has been recognized, in a practical way, by the Department of Agriculture in all of its subsequent estimates of the milch cows of that state. To a smaller extent, the reports of milch cows in all the Southern and most of the Western states included many cows of the same character.

Taking these facts into consideration, it becomes probable that, by the change in the classification of cows, the per cent of difference between the reports of the census of 1890 and that of 1900 is as great for the entire country as in the North Atlantic division, and that, had the undefined term "milch cows" been used in 1900, as in earlier decades, the animals reported under that head would have recorded an increase of not less than 10 and possibly more than 15 per cent.

INCREASE IN THE NUMBER OF "OTHER COWS."

There are many facts shown in the census reports of 1890 and 1900 which indicate that the actual increase in the number of "other cows" has been as great as the increase in the number of cows kept for milk. Of 6,285,220 cattle reported in 1890 on ranges in the South Central and Western divisions, the per cent of cows was 43.8. In the Western division, in 1900, the cows constituted 54.7 per cent of the total number of cattle, exclusive of calves. The corresponding per cent in the South Central states was 54.3. The relative number of cows, other than dairy cows, therefore, has increased materially in the Western and South Central divisions in ten years. General information from the North Central states points to a similar but smaller increase.

INCREASE IN THE NUMBER OF CALVES.

The statistics of calves for the two divisions tend, in a general way, to confirm the conclusions tated in

previous paragraphs concerning the increase in the number of dairy and other cows since 1890, and that some calves were included with "other cattle." The number of calves dropped on farms in 1889, as reported by the census of 1890, was equal to 23.9 per cent of the total number of cattle on hand June 1, 1890. The number of calves on hand June 1, 1900, was equal to 28.3 per cent of the number of all other cattle on hand at that time. As not all calves of 1900 had been dropped by June 1, and as many of those dropped in the North Atlantic, North Central, and South Atlantic divisions, prior to that date, had been slaughtered, the 28.3 per cent given above does not fully express the relative number of calves dropped in 1900. The calves must have constituted more than 30 per cent of the number of all other neat cattle on hand, June 1, 1900. This indicates that the increase in the number of calves dropped was as great as that in the number of cows. In the range states, since the custom of spaying heifers has greatly decreased, the cows available for breeding have increased faster than the number of the stock on hand.

DECREASE IN THE NUMBER OF BEEF STEERS.

The increases in the actual and relative numbers of calves, dairy cows, and other cows during the ten-year period which chronicles the actual decrease in the number of all neat cattle have necessarily been accompanied by a considerable decrease in the number of so-called beef cattle—steers 2 and 3 years old. The number of cows and heifers 1 year old, June 1, 1900, was 37,044,049. The census data, previously reviewed, indicate an increase of at least 10 per cent in the number of these classes of cattle. Their numbers in 1890 could not, therefore, have exceeded 33,500,000, and may have been considerably less. The total number of neat cattle, including from 3,373,413 to 6,746,825 calves under 1 year, June 1, 1890, was 57,648,792. These facts make it probable that the 15,257,592 steers 1 year old, June 1, 1900, were at least 10 and may have been 25 per cent less than the number of similar animals of that age ten years before. The figures previously passed in review, showing a decrease of 22.0 per cent from 1890 to 1900 in the average age at which steers were marketed, make it probable that the number of steers over 1 year old had decreased nearly if not quite 20 per cent. More steers are being slaughtered before maturity than formerly, and this tendency more than offsets the results of improved breeds. The animals slaughtered in 1900 averaged slightly less in weight than ten years previous, and the stock for supplying prime beef was decreased at least 20 per cent below normal, causing a marked advance in value.

DAIRY COWS AND THE DAIRY INDUSTRY.

DAIRYING IN THE EARLY HISTORY OF THE COUNTRY.

Although butter and cheese are mentioned among the early exports from the colonial settlements along the Atlantic coast, dairying as a special branch of agriculture did not appear, to any extent, in the United States until well along in the Nineteenth Century, and its history as an industry, therefore, is identified with the general industrial progress of the United States in the last century.

The rapid growth of cities and the development of transportation facilities have exerted a great influence in the progress of this industry, increasing the demand for dairy produce, making possible the delivery of such produce in cities at a profit to the farmer, and thereby inducing many to adopt dairy farming as a specialty instead of following it as incidental to general agriculture.

In the early part of the Nineteenth Century, the methods and utensils used in dairying were very crude, and the milch cows at that time belonged to mixed native stocks. Winter dairying was unknown. The cows generally calved in the spring, going dry in the fall or early winter, and often, through lack of proper care, dying of starvation or exposure.

In some sections the milk was set in pans for the cream to rise, and in others the entire milk was churned, a method still practiced in the Southern states where butter is made every day. The butter and cheese went to market twice each year, in the spring and fall. The butter was commonly strong, if not rancid, and the cheese sharp, and both brought low prices.

Until the middle of the Nineteenth Century, dairying was a specialty in but few sections. In Herkimer county, N. Y., the making of cheese was begun about 1810.[1] It was at first produced in limited quantities, the farmers fearing overproduction. The industry gradually developed, however, and by 1830 had become quite general in Herkimer and adjoining counties.

Prior to 1840, little cheese was exported from the United States to Europe. As manufactured in those early years, it was not considered fit for market until fall or winter. For foreign shipment it was packed in large rough casks. With the growth of cheese and butter exportation, the dairy industry spread rapidly in the New England states and over New York, Ohio, and Pennsylvania, until, by the middle of the century, the exports of cheese ranged from 3,000,000 to 17,000,000 pounds annually.[2]

New York, Vermont, and Massachusetts became especially known for butter production. Orange, Franklin, and Goshen butter, so called from the counties

[1] Article by X. A. Willard (in 1870) reprinted in Yearbook United States Department of Agriculture, 1899, page 383.

[2] Alvord, "Dairy development in the United States." Pamphlet No. 29, page 384.

where produced, found a ready market at good prices, the brand known as "Orange County" being especially popular.

ESTABLISHMENT OF CHEESE AND BUTTER FACTORIES.

The progress of dairying since 1859 is largely shown in the development of the factory system of making cheese and butter. The first cheese factory in the United States was established in Oneida County, N. Y., in 1851, and by 1869 there were over 1,000 factories in the country.[1] The establishment of butter factories began about a decade after the opening of the first cheese factory, the first creamery being started in Orange County, N. Y., in 1861.[2]

The early cheese factories and creameries were purely cooperative concerns, and it is in this form, whether for the production of butter or cheese, that the system has usually extended into new territory. The producers cooperate, upon any agreed basis, in organizing, building, equipping, and managing the factory and disposing of its products. The operations are commonly directed by a board chosen by the members, although sometimes conducted by a single manager. All expenses are deducted from the gross receipts from sales, and the balance is divided pro rata among the patrons upon the basis of the raw material contributed. Another plan is for the plant to be owned by a joint stock company, composed largely, if not wholly, of farmers. In this case interest on the capital invested is usually allowed and included in the current expenses. The proprietary plan is also common. Factories on this plan are managed much like the others, except that the proprietor or company assumes all the risks and expenses of the business and buys the milk or cream from the producers at prices mutually agreed upon.

The first cheese factories and creameries received milk direct from the farmers. About 1875, the farmers began to skim their milk and deliver the cream only. Later, branches of the creameries were opened for receiving cream, which was shipped by rail or carried by team to the more remote central factories.

The early butter factories allowed the milk to stand and the cream to rise, under the conditions most favorable for the separation of the butter fats. This separation takes place naturally because the specific gravity of the milk serum, or skimmed milk, is greater than that of the cream. The same principle was given a new application by the introduction of the centrifugal separator. This device, recently introduced into the United States from Europe, has radically changed many of the details of dairying.

At the present time most of the milk used by proprietary creameries is bought on the basis of the percentage of butter fat contained in it, determined by the Babcock tester, an invention of Dr. S. M. Babcock, of the Wisconsin Experiment Station.

[1] Yearbook, Department of Agriculture, 1899, page 385.
[2] Yearbook, Department of Agriculture, 1899, page 386.

In 1846 experiments were begun in New York with a view of securing a preserved milk that should be pure, wholesome, and palatable, capable of being transported long distances, and of being kept in trying climates. It was not until 1856 that the present method was devised.[3] Since that time the business of condensing milk has grown to great proportions and has created a market for large quantities of milk.

For many years the milk supply of cities and towns was furnished by dairymen residing in the immediate vicinity. A few large cities and most of the smaller ones are still supplied in this manner, but the greater number of large cities now find the source of their milk supply at considerable distances, the milk being brought by special trains. The handling of this milk supply of large cities has given rise to a complicated business, which can not be described in this connection. Mention may be made, however, of sterilization of the milk, after which process it may be kept sweet and wholesome for a long time.

NUMBER AND VALUE OF DAIRY COWS ON FARMS AND RANGES.

The cows reported by the enumerators of the Twelfth Census under the head of "cows kept for milk" may be briefly styled "dairy cows."

The dairy cows in the United States, June 1, 1900, numbered 18,112,707, of which 17,139,674, or 94.6 per cent, were on farms and ranges, and 973,033, or 5.4 per cent, were in barns and inclosures elsewhere. The number and total value of dairy cows on farms and ranges in the United States June 1, 1900, are given in Table 28, and their average value in Table 34. Both tables present these data by states and territories. Table 35 presents by counties the number of cows reported on farms. A summary of the most important facts of Tables 28 and 34, in relation to dairy cows, is given in table CLVII by geographic divisions.

TABLE CLVII.—NUMBER, VALUE, AND AVERAGE VALUE OF DAIRY COWS ON FARMS AND RANGES, JUNE 1, 1900, WITH PERCENTAGES, BY GEOGRAPHIC DIVISIONS.

GEOGRAPHIC DIVISIONS.	Number.	Value.	Average value.	Per cent of number in division.
The United States	17,139,674	$508,745,131	$29.68	100.0
North Atlantic	3,496,266	111,839,247	31.99	20.4
South Atlantic	1,383,319	30,396,379	21.97	8.1
North Central	8,490,284	267,454,181	31.50	49.5
South Central	2,899,236	68,227,921	23.53	16.9
Western	866,528	30,698,773	35.43	5.1
Alaska and Hawaii	4,041	128,630	31.83	(1)

[1] Less than one-tenth of 1 per cent.

Of dairy cows on farms and ranges, 49.5 per cent were in the North Central division. The next largest number, 20.4 per cent, was in the North Atlantic division, and the smallest, 5.1 per cent, in the Western. The total value of dairy cows on farms and ranges was $508,745,131, or 34.5 per cent of the value of all neat cattle on farms and ranges. The average value of these cows for the United States was $29.68, being highest

[3] Yearbook, Department of Agriculture, 1899, page 389.

in the Western division and lowest in the South Atlantic. Of the individual states and territories, Alaska reported the highest average, $62.31; Montana next, $41.89; and Florida the lowest, $13.31. There is a noticeable tendency in the Western states and territories to improve the quality of dairy cows. The South had the poorest quality of all kinds of neat cattle, as shown by the extremely low average values. This was especially noteworthy in Florida and in the southern parts of the states immediately north of Florida.

DAIRY COWS NOT ON FARMS OR RANGES.

The dairy cows not on farms or ranges, June 1, 1900, numbered 973,033. None of the cows of large dairies were included in this number, as all reports of three or more cows on schedule, form 7-340, were accorded special treatment. Letters were sent to the owners inquiring the area and value of the land used in the care of these cows, and the amount and value of the products obtained in 1899. Whenever the answers indicated that the constant services of one person were required in caring for these cows, the establishment to which they belonged was treated as a farm, and the cows were included with those on farms.

There was no separate tabulation of the number of barns and inclosures containing dairy cows not on farms, but, as the number of neat cattle exclusive of cows, was relatively very small, it seems safe to assume that of the 801,817 inclosures reporting cattle of all kinds, at least 775,000 contained dairy cows. They were distributed among nearly as many owners, who kept them mainly, if not exclusively, for their own use, as will be shown later. But few dairy cows were reported from the largest cities. They were found mainly in the smaller cities, villages, and farming communities. These cows undoubtedly supply, as a rule, not only the milk but the butter used by those keeping them. Not less than one-half, and probably a much larger proportion, of the milk was reserved for conversion into butter. The owners of a small proportion of these cows probably sold milk to their neighbors, but such sales could not have been extensive, and the families supplied with milk by the 973,033 cows could not have greatly exceeded that number. In the calculations made in this report concerning the milk supply of the country, it will be assumed that these cows furnished that number of families with milk and cream, in addition to providing butter for not less than 500,000 families.

The value of dairy cows not on farms or ranges was not ascertained by the enumerators, but the average could not have been less for any section than that of those on farms, and was probably somewhat larger. An approximate statement of the total value is obtained by assuming that the general average was the same as for dairy cows on farms, and this estimate is presented in table CLVIII.

TABLE CLVIII.—NUMBER AND ESTIMATED VALUE OF DAIRY COWS, JUNE 1, 1900, IN BARNS AND INCLOSURES, NOT ON FARMS OR RANGES, WITH PERCENTAGES, BY GEOGRAPHIC DIVISIONS.

GEOGRAPHIC DIVISIONS.	Number.	Estimated value.	Per cent of value.
The United States	973,033	$28,487,115	100.0
North Atlantic	169,419	5,419,714	19.0
South Atlantic	93,468	2,053,492	7.2
North Central	437,598	13,784,337	48.4
South Central	203,933	4,798,543	16.9
Western	68,615	2,431,029	8.5
Alaska	.....	.....	.....
Hawaii	.....	.....	.....

The distribution of these dairy cows by geographic divisions was not greatly different from that of the cows on farms. The estimated value of these cows not on farms, $28,487,115, added to that of the cows on farms, makes a total of $537,232,246, which may be accepted as the total value of cows kept mainly for milk.

Dairy Cows in Cities.—The census of 1900 was the first to collect statistics of the number of dairy cows kept within the limits of the leading cities. These statistics are embodied in Tables 41 and 42, the former giving the total number by cities, and the latter the number to 100,000 inhabitants. The animals included in these tables are those reported on the regular farm schedule, and those reported on the schedule for live stock not on farms. So far as the greater cities are concerned, these tables include the cows tabulated in Tables 28 and 37.

One of the most important facts brought into prominence by Tables 41 and 42 is that only a small relative number of the 973,033 cows not on farms were kept within the limits of cities containing over 25,000 inhabitants. From these cities was reported a total of 156,730 dairy cows, of which 90,146 were included in the totals of Table 28 as cows on farms, while only 66,584 were reported as cows not on farms. In the cities containing 100,000 inhabitants and over there were 88,600 dairy cows, of which 60,013 were on farms, and only 28,587 in barns and inclosures other than on farms; in cities containing 50,000 and less than 100,000 inhabitants there were 26,978 cows, of which 12,246 were on farms, and 14,732 not on farms; and in the cities of 25,000 and less than 50,000 inhabitants there were 41,152, of which 17,877 were on farms, and 23,265 not on farms. The fact that only 66,584, or less than 7 per cent, of the cows not on farms or ranges were in cities of more than 25,000 inhabitants, fully demonstrates the statement above made, that these cows were mainly kept in the smaller communities for supplying individual families with milk and cream, and incidentally with butter, but were no material factor in providing the milk purchased in this country.

The average number of dairy cows of all kinds to 100,000 inhabitants was 624 in cities containing over 100,000 inhabitants. The corresponding number was

996 for cities containing 50,000 and less than 100,000 people, and 1,469 in cities containing 25,000 and less than 50,000, there being a continued increase from the group of largest cities to that of the smallest. Were the statistics for cities containing under 25,000 inhabitants tabulated, they would show a much larger number of cows to 100,000 inhabitants than do the larger cities.

Of the boroughs in Greater New York, Manhattan reported only 9 dairy cows to 100,000 inhabitants; Brooklyn, 212; Bronx, 770; Richmond, 2,939; Queens, 3,544; and the entire city, 337.

Of the cities and boroughs containing 100,000 inhabitants and over, Queens, a borough of Greater New York, reported the largest proportional number of dairy cows, 3,544 to every 100,000 inhabitants. Eleven cities containing over 100,000 inhabitants, and having large proportional numbers of dairy cows within their limits, are named in order. For every 100,000 inhabitants, St. Paul had 2,689 cows; New Orleans, 2,208; Omaha, 2,090; Denver, 2,083; Minneapolis, 1,990; Los Angeles, 1,933; Kansas City, 1,930; St. Louis, 1,648; Memphis, 1,601; Worcester, 1,336; and San Francisco, 1,064.

Of cities containing 50,000 and less than 100,000 inhabitants, Des Moines, Iowa, had the largest proportional number of cows, 4,458 to every 100,000 inhabitants. Sioux City, Iowa, led the list of cities smaller than 50,000, with a proportion of 6,850 cows to every 100,000 inhabitants, and Council Bluffs, Iowa, was second, with 5,058.

Principal Dairy States.—A belief was long entertained that successful dairying in America must be restricted to a "dairy belt" lying between the fortieth and forty-fifth parallels of latitude and extending from the Atlantic Ocean to the Missouri River. The true dairying districts were thought to be separate sections, comprising in the aggregate not more than one-third of the area of this belt. This idea has been exploded, for it has been proven that butter and cheese can be made with profit in most parts of North America.

Generally speaking, good butter can be made wherever good beef can be raised. Advantages unquestionably exist in the climate, soil, water, and herbage of certain sections, but these factors are largely under control, and what is lacking in natural conditions can be supplied by good judgment and skill. Thus, while dairying is an intensified branch of agriculture, constituting the leading interest over large areas where natural and commercial advantages are greatest, the industry is found well established in certain localities in almost all parts of the country, and has been successfully developed in unexpected places under what might be considered very unfavorable conditions.

Owing to the different conditions under which dairying is conducted in the various parts of the country, it is difficult to adopt any very satisfactory basis of arrangement of the states and territories according to their relative importance. The order differs as preference is given to one or another feature of the industry.

If the number of dairy cows, June 1, 1900, be taken as a basis, the 10 most important states arranged in order of rank are as follows: New York, 1,501,608; Iowa, 1,423,648; Illinois, 1,007,664; Wisconsin, 998,397; Pennsylvania, 943,773; Texas, 861,023; Ohio, 818,239; Missouri, 765,386; Minnesota, 753,632; and Kansas, 676,456.

If prime consideration be given to the gallons of milk produced in 1899, the states rank in the following order: New York, 772,799,352; Iowa, 535,872,240; Pennsylvania, 487,033,818; Wisconsin, 472,274,264; Illinois, 457,106,995; Ohio, 425,870,394; Michigan, 309,617,046; Minnesota, 304,017,106; Missouri, 258,207,755; and Texas, 251,342,698.

If greatest weight be given to the farm value of dairy produce, the order is as follows: New York, $55,474,155; Pennsylvania, $35,860,110; Illinois, $29,638,619; Iowa, $27,516,870; Wisconsin, $26,779,721; Ohio, $25,383,627; Michigan, $16,903,087; Minnesota, $16,623,460; Texas, $15,510,978; and Missouri, $15,042,360.

With respect to the number of farms which derived their principal income in 1899 from dairy produce, the states rank in the following order: New York, 67,457 farms; Pennsylvania, 32,600; Wisconsin, 25,246; Maine, 17,740; Vermont, 16,700; Illinois, 15,602; Massachusetts, 14,900; Michigan, 14,116; Ohio, 12,768; and Arkansas, 10,238.

From every point of view, New York ranked as the leading dairy state. The relative rank of the others varied according to the basis of arrangement. In the North Atlantic division dairying was the principal source of income on a large proportion of the farms reporting cows; the ratio of such farms to all farms being higher than in any other division. The Central West had great numbers of dairy cows, but they were kept as incidental to the more general live-stock interests, or to other branches of agriculture. The value of dairy produce appears to have been influenced somewhat by nearness to markets and also by the average production per farm. Moreover, where the dairies were large and were operated to supply city markets, the average quality of the butter and cheese produced was higher. All such factors assisted in modifying the rank of the states with reference to farm values of dairy produce.

DAIRY COWS ON FARMS OF SPECIFIED AREA.

Table CLIX presents some of the salient facts concerning the number of dairy cows on farms of specified areas. These facts are derived from Table 32, which gives, by states and territories, more detailed statistics for all domestic animals.

TABLE CLIX.—TOTAL NUMBER OF FARMS, NUMBER REPORTING DAIRY COWS, NUMBER OF DAIRY FARMS, AND NUMBER OF DAIRY COWS IN THE UNITED STATES ON FARMS CLASSIFIED BY AREA, WITH PERCENTAGES AND AVERAGES.

FARMS CLASSIFIED BY AREA IN ACRES.	Number of farms.	Farms reporting dairy cows.	Dairy farms.	Per cent of all farms reporting dairy cows.	Per cent of all farms that are dairy farms.	Number of dairy cows.	Average number to farms reporting.
The United States	5,739,657	4,514,210	357,578	78.6	6.2	17,139,674	3.8
Under 3	41,882	17,778	5,181	42.4	12.4	66,632	3.7
3 and under 10	226,564	105,944	15,089	46.8	6.7	184,249	1.7
10 and under 20	407,012	210,723	20,502	51.8	5.0	350,018	1.7
20 and under 50	1,257,785	829,096	59,066	65.9	4.7	1,632,554	2.0
50 and under 100	1,366,167	1,150,208	90,814	84.2	6.6	3,434,232	3.0
100 and under 175	1,422,328	1,264,695	104,932	88.9	7.4	5,467,996	4.3
175 and under 260	490,104	454,210	35,183	92.7	7.2	2,653,287	5.8
260 and under 500	377,992	349,491	20,517	92.5	5.4	2,286,647	6.5
500 and under 1,000	102,547	92,684	4,514	90.4	4.4	688,815	7.4
1,000 and over	47,276	39,381	1,780	83.3	3.8	375,244	9.5

The average number of cows, which was smallest on farms containing from 3 to 20 acres, increased more or less regularly in the succeeding groups. The average number of cows on farms containing less than 3 acres was more than twice the number on farms of the next larger group, owing to the inclusion of the numerous small dairy farms in or near cities, as explained in the discussion of table XLIV.

Dairy cows were reported by 92.7 per cent of the farms containing from 175 to 260 acres, and of such farms 7.2 per cent derived their principal income from dairy produce. The smallest per cent of farms with dairy cows was among those with less than 3 acres. The maximum per cent of dairy farms to all farms, with the exception of farms under 3 acres, was found in the group of farms containing from 100 to 175 acres.

DAIRY COWS ON FARMS OF SPECIFIED PRINCIPAL SOURCE OF INCOME.

Table CLX summarizes the most important facts of Table 33, relating to the number of dairy cows on farms classified by principal source of income.

TABLE CLX.—TOTAL NUMBER OF FARMS AND NUMBER REPORTING DAIRY COWS, IN GROUPS OF FARMS CLASSIFIED BY PRINCIPAL SOURCE OF INCOME, AND NUMBER OF COWS UPON THESE FARMS, WITH AVERAGES AND PERCENTAGES.

FARMS CLASSIFIED BY PRINCIPAL SOURCE OF INCOME.	NUMBER OF FARMS.		NUMBER OF FARMS REPORTING DAIRY COWS.		NUMBER OF DAIRY COWS.		
	Total.	Per cent of total.	Total.	Per cent of total.	Total.	Average* per farm reporting.	Per cent of total in group.
Total	5,739,657	100.0	4,514,210	100.0	17,139,674	3.8	100.0
Hay and grain	1,319,856	23.0	1,002,261	22.2	3,553,322	3.5	20.7
Vegetables	155,898	2.7	90,244	2.0	226,004	2.5	1.3
Fruits	82,176	1.4	49,871	1.1	110,168	2.2	0.6

TABLE CLX.—TOTAL NUMBER OF FARMS AND NUMBER REPORTING DAIRY COWS, IN GROUPS OF FARMS CLASSIFIED BY PRINCIPAL SOURCE OF INCOME, AND NUMBER OF COWS UPON THESE FARMS, WITH AVERAGES AND PERCENTAGES—Continued.

FARMS CLASSIFIED BY PRINCIPAL SOURCE OF INCOME.	NUMBER OF FARMS.		NUMBER OF FARMS REPORTING DAIRY COWS.		NUMBER OF DAIRY COWS.		
	Total.	Per cent of total.	Total.	Per cent of total.	Total.	Average per farm reporting.	Per cent of total in group.
Live stock	1,564,714	27.3	1,409,343	31.2	5,852,815	4.2	34.2
Dairy produce	357,578	6.2	357,578	7.9	3,421,733	9.6	20.0
Tobacco	106,272	1.9	73,623	1.6	145,097	2.0	0.8
Cotton	1,071,545	18.7	644,614	14.3	1,315,491	2.0	7.7
Rice	5,717	0.1	2,652	0.1	7,340	2.8	0.1
Sugar	7,344	0.1	4,624	0.1	14,989	3.2	0.1
Flowers and plants	6,159	0.1	910	(1)	1,544	1.7	(1)
Nursery products	2,029	(1)	809	(1)	2,121	2.6	(1)
Taro	441	(1)	20	(1)	60	3.0	(1)
Coffee	512	(1)	85	(1)	434	5.1	(1)
Miscellaneous	1,059,416	18.5	877,576	19.5	2,488,556	2.8	14.5

[1] Less than one-tenth of 1 per cent.

The dairy farms, June 1, 1900, constituted 6.2 per cent of all farms, 7.9 per cent of those reporting dairy cows, and reported 20.0 per cent of the total number of such cows. The average number of cows per dairy farm was 9.6, or nearly three times the average on all farms, and more than that of any other group classified on the basis of source of income.

No table shows the incidental nature of the dairy industry better than does table CLX. Of all farms, 78.6 per cent reported cows, but only 6.2 per cent made dairy produce the principal source of their income. The industry is a great one, but its greatness consists more in its contribution to the food supply of those gaining a livelihood in other branches of agriculture than in the number of those who by it are able to maintain themselves as farm owners or tenants.

Table CLXI summarizes, by states and territories, the salient facts concerning dairy cows on dairy farms and those on all other farms treated as a single class.

TABLE CLXI.—NUMBER OF DAIRY FARMS AND OF OTHER FARMS, JUNE 1, 1900, WITH THE TOTAL AND AVERAGE NUMBER OF DAIRY COWS PER FARM, AND AVERAGES FOR THE FARMS REPORTING SAME, BY STATES AND TERRITORIES.

STATES AND TERRITORIES.	DAIRY FARMS.			OTHER FARMS.			
	Number.	Cows.		Number.	Farms reporting dairy cows.	Number of cows.	
		Total number.	Average number per farm.			Total.	Average per farm reporting.
The United States	357,578	3,421,783	9.6	5,382,079	4,156,632	13,717,941	3.3
North Atlantic division	174,910	1,859,633	10.6	502,596	403,332	1,636,633	4.1
Maine	17,740	83,293	4.7	41,559	31,421	90,299	2.9
New Hampshire	9,788	70,788	7.2	19,536	12,731	44,248	3.5
Vermont	16,700	199,603	12.0	16,404	12,577	70,591	5.6
Massachusetts	14,900	136,999	9.2	22,815	13,262	47,563	3.6
Rhode Island	1,470	15,609	10.6	4,028	2,577	8,051	3.1
Connecticut	8,296	74,051	8.9	18,652	13,201	52,383	4.0
New York	67,457	922,128	13.7	159,263	128,909	579,480	4.5
New Jersey	5,959	72,241	12.1	28,691	21,218	85,166	4.0
Pennsylvania	32,600	284,921	8.7	191,648	167,436	658,852	3.9
South Atlantic division	11,671	93,931	8.0	950,554	632,649	1,289,388	2.0
Delaware	538	5,368	10.0	9,149	7,151	27,223	3.8
Maryland	3,041	26,583	8.7	42,971	32,968	120,751	3.7
District of Columbia	75	1,097	14.6	194	94	154	1.6
Virginia	1,624	15,098	9.3	166,262	125,168	266,783	2.1
West Virginia	1,828	10,201	5.6	91,046	78,649	195,400	2.5
North Carolina	917	4,815	5.3	223,720	143,636	228,363	1.6
South Carolina	442	3,827	8.7	154,913	81,041	122,857	1.5
Georgia	1,353	11,078	8.2	223,338	144,691	264,946	1.8
Florida	1,853	15,919	8.6	38,961	19,251	62,911	3.3
North Central division	108,403	978,727	9.0	2,088,164	1,817,010	7,511,557	4.1
Ohio	12,768	121,323	9.5	263,951	231,637	696,916	3.0
Indiana	6,338	43,887	6.9	215,559	187,079	530,389	2.8
Illinois	15,602	205,846	13.2	248,549	215,023	801,818	3.7
Michigan	14,116	74,043	5.2	189,145	161,804	489,862	3.0
Wisconsin	25,246	241,548	9.6	144,549	130,890	756,849	5.8
Minnesota	9,249	77,274	8.4	145,410	130,189	676,358	5.2
Iowa	7,678	74,460	9.7	226,944	202,598	1,349,188	6.7
Missouri	6,021	47,748	7.9	278,865	234,119	717,638	3.1
North Dakota	1,196	7,571	6.3	44,136	33,848	117,932	3.5
South Dakota	1,975	20,472	10.4	50,647	42,222	250,162	5.9
Nebraska	2,833	23,611	8.3	118,692	103,080	488,933	4.7
Kansas	5,381	40,944	7.6	167,717	144,521	635,512	4.4
South Central division	34,940	184,624	5.2	1,623,226	1,156,581	2,714,612	2.3
Kentucky	2,443	18,513	7.6	232,224	187,462	345,512	1.8
Tennessee	1,850	12,962	7.0	222,773	177,175	308,714	1.7
Alabama	7,504	23,299	3.1	215,716	146,923	255,964	1.7
Mississippi	2,965	14,480	4.9	217,838	136,342	284,838	2.1
Louisiana	1,646	15,787	9.6	114,323	62,321	169,028	2.7
Texas	4,668	43,685	9.4	347,522	255,769	817,338	3.2
Oklahoma	3,238	18,131	5.6	59,257	43,321	147,721	3.4
Indian Territory	388	6,237	16.1	45,117	31,271	104,450	3.3
Arkansas	10,238	31,530	3.1	168,456	115,997	281,047	2.4
Western division	27,620	304,198	11.0	215,288	146,779	562,330	3.8
Montana	1,153	11,293	9.8	12,217	8,373	33,743	4.0
Wyoming	486	3,024	6.2	5,609	3,383	15,248	4.5
Colorado	3,867	34,851	9.0	20,833	14,802	65,265	4.4
New Mexico	682	5,447	8.0	11,629	3,362	11,328	3.4
Arizona	472	5,370	11.4	5,337	1,981	12,595	6.4
Utah	1,815	11,851	6.5	17,572	14,766	54,054	3.7
Nevada	228	3,122	13.7	1,956	1,456	10,484	7.2
Idaho	1,985	10,795	5.4	15,486	10,943	41,134	3.8
Washington	4,495	35,075	7.8	28,707	21,547	72,157	3.3
Oregon	3,751	30,063	8.0	32,086	25,663	92,384	3.6
California	8,686	153,307	17.6	63,856	40,503	153,938	3.8
Alaska	.....	.....	.....	12	3	13	4.3
Hawaii	34	620	18.2	2,239	278	3,408	12.3

The average number of cows to each dairy farm in the United States was 9.6, and to each of the "other farms," 3.3. By groups of states the average number per dairy farm was largest in Hawaii, where it was 18.2. In the Western division it was 11.0; in the North Atlantic, 10.6; and in the South Central, only 5.2. On farms other than dairy farms, the average number of dairy cows, by groups of states, was highest in Hawaii, 12.3, and lowest in the South Atlantic division, 2.0. In the South Central it was 2.3, and in the North Atlantic and the North Central, 4.1.

Attention is especially called to the large number of states in which there were less than 2 dairy cows to a farm, showing that cows in those states were kept exclusively for the needs of home consumption. Great numbers of farmers in all parts of the country thus kept cows. The number of farms with less than 3 cows each was at least 1,000 000, not including any farms without cows.

DAIRY FARMS.

Table CLXII gives, by geographic divisions, a summary of the statistics of dairy farms given in Table 16.

TABLE CLXII.—NUMBER AND ACREAGE OF DAIRY FARMS AND VALUE OF SPECIFIED FORMS OF FARM PROPERTY,

	STATES AND TERRITORIES.	NUMBER OF FARMS.		ACREAGE, JUNE 1, 1900.			VALUE OF FARM PROPERTY, JUNE 1, 1900.				
		Total.	With buildings.	Total.	Improved.	Per cent improved.	Total.	Land and improvements (except buildings).	Buildings.	Implements and machinery.	Live stock.
1	The United States	357,578	351,747	43,283,971	22,616,227	52.3	$1,693,467,302	$954,389,210	$425,557,335	$71,916,241	$241,604,516
2	North Atlantic division	174,910	173,636	20,215,818	11,744,279	58.1	864,837,243	419,701,415	280,610,812	45,682,761	118,842,255
3	Maine	17,740	17,544	1,785,286	668,880	37.5	38,751,782	14,641,210	15,243,040	2,783,260	6,084,272
4	New Hampshire	9,788	9,730	1,294,967	419,938	32.4	33,862,433	13,215,105	13,498,392	2,164,841	4,984,095
5	Vermont	16,700	16,697	2,538,948	1,198,253	47.2	63,251,427	26,534,830	21,060,160	4,453,190	11,203,247
6	Massachusetts	14,900	14,706	1,442,947	632,098	43.8	85,193,721	39,931,840	31,812,980	4,212,020	9,236,881
7	Rhode Island	1,470	1,460	151,650	64,500	42.5	10,597,939	5,666,260	3,244,680	477,540	1,209,459
8	Connecticut	8,296	8,213	879,975	422,234	48.0	41,332,713	19,088,150	15,313,580	1,907,300	5,023,683
9	New York	67,457	67,138	8,706,442	5,859,584	67.3	352,953,954	172,960,420	106,723,010	18,129,300	55,141,224
10	New Jersey	5,959	5,884	611,993	441,906	72.2	45,790,712	22,796,610	15,628,160	2,118,430	5,247,512
11	Pennsylvania	32,600	32,264	2,803,670	2,036,886	72.7	193,102,562	104,866,990	58,086,810	9,436,880	20,711,882
12	South Atlantic division	11,671	11,196	1,257,513	642,216	51.1	54,724,745	33,892,420	12,802,410	1,744,500	6,285,415
13	Delaware	538	535	50,956	39,566	77.6	5,348,202	3,335,170	1,375,850	211,440	425,742
14	Maryland	3,041	3,002	292,259	205,170	70.2	20,730,657	12,490,760	5,367,790	760,670	2,111,437
15	District of Columbia	75	75	4,173	2,530	60.6	4,077,151	3,407,800	544,410	43,770	81,171
16	Virginia	1,624	1,580	219,531	131,477	59.9	8,618,318	5,501,310	1,896,590	234,110	986,303
17	West Virginia	1,828	1,788	172,769	102,671	59.4	5,871,460	3,680,660	1,246,060	149,400	795,340
18	North Carolina	917	874	105,893	37,928	35.8	1,994,126	1,030,480	582,510	79,280	301,856
19	South Carolina	442	427	74,222	17,051	23.0	1,180,499	649,930	272,890	46,070	211,609
20	Georgia	1,353	1,316	154,664	53,178	34.4	4,014,777	2,418,720	850,370	123,060	622,627
21	Florida	1,853	1,599	183,046	52,645	28.8	2,889,560	1,377,590	665,940	96,700	749,330
22	North Central division	108,403	106,172	12,003,792	7,413,484	61.8	564,286,038	369,249,320	100,731,330	17,481,345	76,824,043
23	Ohio	12,768	12,523	1,128,380	774,290	68.6	65,735,524	42,830,650	13,807,730	1,888,780	7,708,364
24	Indiana	6,338	6,150	498,945	360,492	72.3	28,181,602	19,026,980	5,050,760	741,200	3,362,662
25	Illinois	15,602	15,227	1,673,279	1,318,710	78.8	129,402,044	90,827,690	20,677,220	3,150,100	14,747,034
26	Michigan	14,116	13,845	1,076,061	660,601	61.4	46,880,763	28,484,330	10,470,890	1,879,660	6,045,883
27	Wisconsin	25,246	24,972	2,637,299	1,582,120	60.0	138,155,713	89,156,470	27,180,060	4,876,730	16,942,453
28	Minnesota	9,249	9,124	1,088,988	566,424	52.0	36,910,565	23,515,400	6,448,600	1,263,505	5,683,060
29	Iowa	7,678	7,618	860,049	698,542	81.2	49,635,804	32,868,850	7,596,810	1,594,210	7,575,934
30	Missouri	6,021	5,817	577,575	355,763	61.6	27,660,208	18,974,600	4,091,850	616,970	6,976,788
31	North Dakota	1,196	1,140	266,059	78,045	29.3	3,278,252	1,595,530	354,750	174,090	1,153,882
32	South Dakota	1,975	1,908	603,116	263,639	43.7	7,504,289	3,988,240	963,920	278,820	2,273,309
33	Nebraska	2,833	2,716	614,328	246,056	40.1	11,567,430	6,661,880	1,606,760	369,200	2,929,590
34	Kansas	5,381	5,132	979,713	508,802	51.9	19,373,844	11,318,700	2,981,980	648,080	4,425,084
35	South Central division	34,940	33,794	4,056,264	1,207,694	29.8	65,166,261	35,506,780	12,897,260	2,424,375	14,337,846
36	Kentucky	2,443	2,371	213,402	141,305	66.2	10,726,118	6,741,760	2,327,240	315,560	1,341,558
37	Tennessee	1,850	1,796	169,663	86,358	50.9	7,158,200	4,289,650	1,580,560	233,860	1,054,130
38	Alabama	7,504	7,269	636,323	180,116	28.3	7,116,131	3,322,340	1,922,200	304,170	1,567,421
39	Mississippi	2,965	2,916	359,048	85,173	23.7	4,599,781	2,070,970	1,231,190	204,440	1,093,181
40	Louisiana	1,646	1,575	149,256	49,275	33.0	4,708,806	2,598,510	1,055,960	197,270	857,066
41	Texas	4,668	4,385	934,253	168,512	18.0	14,115,155	7,844,120	2,354,210	488,485	3,428,340
42	Oklahoma	3,238	3,159	601,135	179,260	29.8	6,442,276	3,570,120	499,330	221,520	2,151,306
43	Indian Territory	388	375	40,338	18,613	46.1	807,298	241,000	116,220	34,330	415,748
44	Arkansas	10,288	9,948	952,846	299,082	31.4	9,492,496	4,828,310	1,810,350	424,740	2,429,096
45	Western division	27,620	26,920	5,746,605	1,608,448	28.0	144,321,835	95,975,065	18,499,283	4,581,780	25,265,707
46	Montana	1,153	1,130	279,759	74,096	26.5	4,416,310	2,124,160	642,130	230,990	1,419,030
47	Wyoming	486	461	142,524	30,007	21.1	1,376,086	631,280	157,640	62,130	525,036
48	Colorado	3,867	3,714	865,351	191,574	22.1	16,518,947	9,184,960	2,486,680	561,330	4,285,977
49	New Mexico	682	593	120,763	16,375	13.6	1,790,607	790,140	242,780	71,770	685,917
50	Arizona	472	448	48,145	23,175	48.1	2,108,135	1,104,070	448,290	71,410	484,365
51	Utah	1,815	1,788	159,773	69,467	43.5	4,928,736	2,732,210	971,630	227,080	997,816
52	Nevada	228	224	97,817	26,993	27.6	1,795,862	1,069,800	290,640	84,700	350,722
53	Idaho	1,985	1,927	294,543	93,391	31.7	4,686,315	2,640,860	620,490	270,100	1,154,865
54	Washington	4,495	4,415	689,785	188,696	27.4	16,320,333	10,475,580	2,244,380	591,450	3,008,923
55	Oregon	3,751	3,702	660,991	161,688	24.5	14,176,453	9,233,205	1,888,293	519,270	2,535,685
56	California	8,686	8,518	2,387,154	783,041	30.7	76,204,051	55,988,800	8,506,330	1,891,550	9,817,371
57	Alaska										
58	Hawaii	34	29	3,979	106	2.7	131,180	64,210	16,240	1,480	49,250

VALUE OF PRODUCTS, AND EXPENDITURES IN 1899, FOR LABOR AND FERTILIZERS, BY STATES AND TERRITORIES.

Value of products, 1899.				Expenditures, 1899.		Average values per farm.							Average value per acre of products of 1899 not fed.	Average expenditures per farm, 1899.		
						Farm property, June 1, 1900.					Products, 1899.					
Total.	Fed to live stock.	Not fed to live stock.	Per cent not fed, to value of property.	Labor.	Fertilizers.	Total.	Land and improvements (except buildings).	Buildings.	Implements and machinery.	Live stock.	Total.	Not fed to live stock.		Labor.	Fertilizers.	
$384,953,680	$103,639,771	$281,313,909	16.6	$37,427,580	$4,100,218	$4,736	$2,669	$1,190	$201	$676	$1,077	$787	$6.50	$105	$11	1
224,259,245	65,203,952	159,055,293	18.4	23,275,780	3,265,745	4,944	2,400	1,604	261	679	1,282	909	7.87	133	19	2
11,961,693	3,539,010	8,422,683	21.7	834,860	200,970	2,184	825	859	157	343	674	475	4.72	47	11	3
9,574,177	2,950,192	6,623,985	19.6	1,084,270	156,325	3,460	1,350	1,379	221	510	978	677	5.12	111	16	4
20,658,166	7,522,160	13,136,006	20.8	1,888,680	264,700	3,788	1,589	1,261	267	671	1,237	787	5.17	113	16	5
21,721,914	5,179,640	16,542,274	19.4	3,442,400	552,220	5,718	2,680	2,135	283	620	1,458	1,110	11.46	231	37	6
2,664,637	471,550	2,193,087	20.7	443,380	64,780	7,209	3,854	2,207	325	823	1,813	1,492	14.46	302	44	7
11,231,928	2,892,070	8,339,858	20.2	1,636,510	226,310	4,982	2,301	1,846	230	605	1,354	1,005	9.48	197	27	8
95,454,670	29,067,720	66,386,950	18.8	8,691,340	821,460	5,232	2,564	1,582	269	817	1,415	984	7.63	129	12	9
10,923,970	2,507,540	8,416,430	18.4	1,572,830	253,530	7,684	3,825	2,623	355	881	1,833	1,412	13.75	264	43	10
40,068,090	11,074,070	28,994,020	15.0	3,681,510	725,450	5,923	3,217	1,782	289	635	1,229	889	10.34	113	22	11
11,066,224	1,866,200	9,200,024	16.8	1,284,740	311,740	4,689	2,904	1,097	149	539	948	788	7.32	110	27	12
861,980	218,190	643,790	12.0	122,570	33,450	9,941	6,199	2,558	393	791	1,602	1,197	12.63	228	62	13
3,951,300	850,170	3,101,130	15.0	529,730	151,000	6,817	4,108	1,765	250	694	1,299	1,020	10.61	174	50	14
215,578	14,040	201,538	4.9	41,030	4,130	54,362	45,437	7,259	584	1,082	2,874	2,687	48.30	547	55	15
1,888,330	270,600	1,617,730	18.8	216,810	51,050	5,307	3,388	1,168	144	607	1,163	996	7.37	134	31	16
1,261,490	193,890	1,067,600	18.2	80,520	7,720	3,212	2,013	682	82	435	690	584	6.18	44	4	17
593,060	75,910	517,150	25.9	63,960	13,310	2,175	1,124	635	87	329	647	564	4.88	70	15	18
367,830	37,650	330,180	28.0	55,480	15,200	2,671	1,471	617	104	479	832	747	4.45	126	34	19
1,170,570	120,320	1,050,250	26.2	112,360	19,990	2,967	1,788	628	91	460	865	776	6.79	83	15	20
756,086	85,430	670,656	23.2	62,280	15,890	1,559	744	359	52	404	408	362	3.66	34	9	21
106,273,907	28,772,343	77,501,564	13.7	8,182,000	385,803	5,205	3,406	929	161	709	980	715	6.46	75	4	22
14,782,140	3,174,010	11,608,130	17.7	1,226,230	153,330	5,148	3,354	1,042	148	604	1,158	909	10.29	96	12	23
5,850,130	1,262,780	4,587,350	16.3	425,220	29,460	4,446	3,002	797	117	530	923	724	9.19	67	5	24
23,554,250	7,084,900	16,469,350	12.7	2,091,420	90,440	8,294	5,822	1,325	202	945	1,510	1,056	9.84	134	6	25
9,725,570	2,539,260	7,186,310	15.3	768,170	39,520	3,321	2,018	742	133	428	689	509	6.68	54	3	26
24,992,534	7,103,390	17,889,144	12.9	1,829,480	36,440	5,472	3,531	1,077	193	671	990	709	6.78	72	1	27
7,510,233	1,808,453	5,701,780	15.4	657,260	11,843	3,991	2,543	697	137	614	812	616	5.24	71	1	28
7,986,150	2,614,990	5,371,160	10.8	453,920	7,500	6,465	4,281	989	208	987	1,040	699	6.25	59	1	29
4,834,470	958,720	3,875,750	14.0	324,540	6,460	4,594	3,151	680	102	661	803	644	6.71	54	1	30
481,080	127,770	353,310	10.8	32,040	550	2,741	1,334	297	145	965	402	295	1.33	27	(1)	31
1,189,690	309,160	880,530	11.7	68,030	170	3,800	2,020	488	141	1,151	602	446	1.46	34	(1)	32
1,770,020	525,450	1,244,570	10.8	98,910	2,280	4,083	2,352	567	130	1,034	625	439	2.03	35	1	33
3,597,640	1,263,460	2,334,180	12.0	206,780	7,810	3,600	2,104	554	120	822	669	434	2.38	38	1	34
16,415,812	2,388,080	14,027,732	21.5	955,250	100,040	1,865	1,016	369	70	410	470	402	3.46	27	3	35
2,293,050	268,100	2,024,950	18.9	198,360	7,970	4,391	2,760	953	129	549	939	829	9.49	81	3	36
1,548,690	222,960	1,325,730	18.5	149,380	9,890	3,869	2,319	854	126	570	837	717	7.81	81	5	37
2,094,762	261,360	1,833,402	25.8	104,600	43,310	948	443	256	40	209	279	244	2.88	14	6	38
1,089,870	189,400	900,470	19.6	60,220	18,430	1,551	698	415	69	369	368	304	2.51	20	6	39
1,475,000	82,880	1,392,120	29.6	112,620	8,260	2,861	1,579	641	120	521	896	846	9.33	68	5	40
3,188,270	393,380	2,794,890	19.8	211,370	7,150	3,024	1,680	504	105	735	683	599	2.99	45	2	41
951,390	329,130	622,260	9.7	32,550	.....	1,990	1,103	154	69	664	294	192	1.04	10	.....	42
183,960	28,920	155,040	19.2	7,580	.....	2,081	621	300	88	1,072	474	400	3.84	20	.....	43
3,590,820	611,950	2,978,870	31.4	78,570	5,030	927	472	177	41	237	351	291	3.13	8	(1)	44
26,900,822	5,409,196	21,491,626	14.9	3,722,820	36,890	5,225	3,475	670	166	914	974	778	3.74	135	1	45
1,205,962	295,510	910,452	20.6	174,030	.....	3,830	1,842	557	200	1,231	1,046	790	3.25	151	.....	46
278,190	78,410	199,780	14.5	31,120	400	2,831	1,299	324	128	1,080	572	411	1.40	64	1	47
3,014,600	679,280	2,335,320	14.1	335,040	3,010	4,272	2,375	643	145	1,109	780	604	2.70	87	1	48
253,990	52,940	201,050	11.2	35,310	.....	2,626	1,159	356	105	1,006	372	295	1.66	52	.....	49
451,360	84,730	366,630	17.4	44,950	.....	4,466	2,339	950	151	1,026	956	777	7.62	95	.....	50
996,940	268,540	728,400	14.8	70,240	960	2,716	1,506	535	125	550	549	401	4.56	39	1	51
385,220	131,240	253,980	14.1	72,480	.....	7,877	4,692	1,275	372	1,538	1,690	1,114	2.60	318	.....	52
916,830	269,606	647,224	13.8	71,280	1,190	2,361	1,330	313	136	582	462	326	2.20	36	1	53
3,761,830	771,220	2,990,610	18.3	374,250	1,950	3,631	2,331	499	132	669	837	665	4.34	33	(1)	54
2,793,920	583,740	2,210,180	15.6	265,050	2,140	3,779	2,462	503	138	676	745	589	3.34	71	1	55
12,841,980	2,193,980	10,648,000	14.0	2,249,070	27,240	8,773	6,446	979	218	1,130	1,478	1,226	4.46	259	3	56
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	57
37,670	.....	37,670	28.7	6,990	.....	3,858	1,889	478	43	1,448	1,108	1,108	9.47	206	.....	58

[1] Less than $1.

There were reported for the United States, June 1, 1900, 357,578 dairy farms, of which 351,747, or 98.4 per cent, had buildings. These farms embraced 43,283,971 acres of land, of which 22,616,227, or 52.3 per cent, were improved. The per cent of land improved being 49.3 for all farms, there was a greater relative area of improved land in dairy than in other farms. The average area of these farms was 121.0 acres, while that of all farms was 146.6, and of live-stock farms, 226.9 acres.

The number of dairy farms as given in the foregoing table, must not be taken as showing the relative importance of the dairy industry in the respective states. In every state there were found farms the products of which were so insignificant that the sales of the produce of a single cow frequently formed 40 per cent of the total farm income, and such farms had a lower value of land and a lower gross income per farm, than any other class.

The farm property on dairy farms had values as follows: Land and improvements, except buildings, $954,389,210; buildings, $425,557,335; implements and machinery, $71,916,241; live stock, $241,604,516; total, $1,693,467,302. The average values per farm were: Land and improvements, $2,669; buildings, $1,190; implements and machinery, $201; live stock, $676; total, $4,736. The corresponding averages for all farms were $2,285, $620, $133, $536, and $3,574, respectively. For live-stock farms they were $2,871, $766, $151, $1,009, and $4,797. The total average investment was slightly greater for live-stock farms than for dairy farms, but the average for dairy farms was materially higher than for all farms. The buildings on dairy farms had an average value per farm nearly double that for all farms and more than 55 per cent greater than for the live-stock farms, though the latter were the larger, as stated above. The average value of implements and machinery on dairy farms was materially greater than on all farms or on any other group of farms with large average areas.

The dairy farms reported a total farm value of products in 1899 of $384,953,680, of which $103,639,771 was fed to live stock, leaving a gross farm income of $281,313,909. This was equivalent to 16.6 per cent of the total value of farm property. The average value of products not fed, per dairy farm, was $787, while the corresponding average for all farms was $656, and that for live-stock farms, $788. Dairy farming does not require as intensive cultivation as some other branches of agriculture, and, although the average value per acre of products not fed to livestock was twice as great for dairy as for live-stock farms, and greater than for all farms, it was materially less than for the intensively cultivated farms devoted to special crops.

For dairy farms, that average was $6.50; for vegetable farms, $10.21; fruit farms, $12.22; sugar farms, $14.63; nurseries, $60.84; florists' establishments, $431.83; and for all farms, $4.47.

The dairy farms expended, in 1899, $37,427,580 for labor, and $4,100,218 for fertilizers, an average per farm of $105 and $11, respectively. The corresponding averages for all farms were $64 and $10, respectively.

The average gross farm income per acre for dairy farms was, in the North Atlantic division, $7.87; South Atlantic, $7.32; North Central, $6.46; South Central, $3.46; Western, $3.74; and Hawaii, $9.47. The variation marks the difference in the conditions under which the dairy industry was pursued in the various parts of the country, and in the character of the land included in dairy farms. These differences are also shown by the variation in the average size and value of farms, and more markedly in the average value of farm land per acre, as indicated in table CLXII.

DAIRY COWS ON FARMS OF SPECIFIED TENURES.

Table CLXIII presents, by geographic divisions, some of the most important facts concerning the number of dairy cows on farms of specified tenures. These facts are derived from Tables 29, 30, and 31.

TABLE CLXIII.—TOTAL NUMBER OF FARMS, JUNE 1, 1900, NUMBER REPORTING DAIRY COWS, NUMBER OF DAIRY FARMS, AND NUMBER OF DAIRY COWS IN THE UNITED STATES ON FARMS OF SPECIFIED TENURES, WITH PERCENTAGES AND AVERAGES.

CLASSIFICATION OF FARMS BY TENURE.	Number of farms.	Farms reporting dairy cows.	Dairy farms.	Per cent of all farms reporting dairy cows.	Per cent of all farms that are dairy farms.	Number of dairy cows.	Average number per farm reporting.
The United States.	5,739,657	4,514,210	357,578	78.6	6.2	17,139,674	3.8
Owners	3,149,344	2,675,191	246,277	84.9	7.8	10,459,262	3.9
Part owners	451,515	399,593	19,394	88.5	4.3	1,734,648	4.3
Owners and tenants	53,299	48,328	2,679	90.7	5.0	207,162	4.3
Managers	59,213	42,995	5,950	72.6	10.0	295,794	6.9
Cash tenants	752,920	497,288	44,746	66.0	5.9	1,823,713	3.7
Share tenants	1,273,366	850,820	38,532	66.8	3.0	2,619,095	3.1

The largest average number of cows per farm was on farms with managers, and the smallest on farms of share tenants. The average number to the farms of cash tenants varied little from that on those of owners. The large average number of cows on the farms of managers is merely the result of the larger average size of such farms. The relation of the different tenures to the keeping of dairy cows is shown by the per cent of dairy farms operated by each group. The managers showed the greatest per cent of dairy farms, 10.0, and owners ranked next. Successful dairy farming requires considerable capital; consequently the largest relative numbers of such farms are operated by owners and managers.

DAIRY COWS ON FARMS OF WHITE AND COLORED FARMERS.

The statistics of domestic animals on farms of white and colored farmers are given, by tenure and by states and territories, in Tables 30 and 31. Summaries of some of the most important facts there presented are given in tables CLXIV and CLXV.

TABLE CLXIV.—TOTAL NUMBER OF FARMS, JUNE 1, 1900, AND NUMBER REPORTING DAIRY COWS, NUMBER OF DAIRY FARMS AND NUMBER OF DAIRY COWS, IN THE SOUTH ATLANTIC AND SOUTH CENTRAL STATES, ON FARMS OF WHITE AND COLORED FARMERS, WITH PERCENTAGES AND AVERAGES.

RACE OF FARMER.	Number of farms.	Farms reporting dairy cows.	Dairy farms.	Per cent of all farms reporting dairy cows.	Per cent of all farms that are dairy farms.	Number of dairy cows.	Average number per farm reporting.
Total	2,620,391	1,835,841	46,611	70.1	1.8	4,282,555	2.3
White farmers	1,879,721	1,497,971	42,016	79.7	2.2	3,731,059	2.5
Colored farmers	740,670	337,870	4,595	45.6	0.6	551,496	1.6

TABLE CLXV.—TOTAL NUMBER OF FARMS, NUMBER OF FARMS REPORTING DAIRY COWS, NUMBER OF DAIRY FARMS AND NUMBER OF DAIRY COWS IN THE UNITED STATES, ON FARMS OF WHITE AND COLORED FARMERS, JUNE 1, 1900, WITH PERCENTAGES AND AVERAGES, BY GEOGRAPHIC DIVISIONS.

A.—FARMS OF WHITE FARMERS.

GEOGRAPHIC DIVISIONS.	Number of farms.	Farms reporting dairy cows.	Number of dairy farms.	Per cent of all farms reporting dairy cows.	Per cent of all farms that are dairy farms.	Number of dairy cows.	Average number to farms reporting.
The United States	4,970,129	4,165,240	352,055	83.8	7.1	16,559,766	4.0
North Atlantic	675,366	577,066	174,684	85.4	25.9	3,491,995	6.1
South Atlantic	673,354	522,919	10,722	77.7	1.6	1,215,908	2.3
North Central	2,179,667	1,917,207	107,931	88.0	5.0	8,472,189	4.4
South Central	1,206,367	975,052	31,294	80.8	2.6	2,515,151	2.6
Western	234,854	172,794	27,402	73.6	11.7	861,410	5.0
Alaska	12	3	.....	38.8	4.2	13	16.4
Hawaii	509	199	22			3,100	

B.—FARMS OF COLORED FARMERS.

GEOGRAPHIC DIVISIONS.	Number of farms.	Farms reporting dairy cows.	Number of dairy farms.	Per cent of all farms reporting dairy cows.	Per cent of all farms that are dairy farms.	Number of dairy cows.	Average number to farms reporting.
The United States	769,528	348,970	5,523	45.3	0.7	579,908	1.7
North Atlantic	2,140	1,176	226	55.0	10.6	4,271	3.6
South Atlantic	288,871	121,401	949	42.0	0.3	167,411	1.4
North Central	16,900	8,206	472	48.6	2.8	18,095	2.2
South Central	451,799	216,469	3,646	47.9	0.8	384,085	1.8
Western	8,054	1,605	218	19.9	2.7	5,118	3.2
Alaska	.....	.....	.....	.....	.....	.....	.....
Hawaii	1,764	113	12	6.4	0.7	928	8.2

Dairy produce was the principal source of income of 7.1 per cent of the farms of white farmers. The corresponding percentage for farms of colored farmers was only 0.7, so that in proportion to their number hardly one-tenth as many colored as white farmers derived their income from dairy products. The average number of cows kept by colored farmers was only 1.7, while the corresponding average for white farmers was 4.0.

The number of dairy farms in proportion to the number reporting dairy cows was small for white and colored farmers alike. While only 7.1 per cent of the farms of white farmers were dairy farms, 83.8 per cent kept dairy cows. The corresponding figures for colored farmers were 0.7 and 45.3 per cent. The smaller per cent of colored farmers keeping dairy cows and the smaller average number per farm kept by them are in accord with the relative number of all cows kept by that race. The colored farmers reported only 579,908, or 3.4 per cent of all dairy cows, although they operated 769,528, or 13.4 per cent of all farms. They had, relatively, about two-fifths as many cows as did the white farmers and only one-tenth as many dairy farms.

The per cent of dairy farms for white and colored farmers was largest in the North Atlantic division, and was larger in the North Central than in either group of Southern states. These facts suggest the possibility that the difference in the statistics of the dairies of the white and colored races may be due as much to locality as to race. To eliminate as far as possible the factor of locality from the statistics of race, there is given in table CLXIV a summary for the combined South Atlantic and South Central states of the same facts as shown in table CLXIII for all geographic groups. These two groups are chosen because they contain the great majority of colored farmers.

In these groups of states 0.6 per cent of the colored farmers obtained their principal income from dairy products, while the corresponding per cent of white farmers was 2.2. The per cent of farms of colored farmers reporting cows was 45.6, while that of white farmers was 79.7. The average number of cows per farm in those states was 1.6 for colored farmers, and for white farmers it was 2.5.

Table CLXVI shows, by geographic divisions, the reported production of milk on farms and ranges in 1899, the number of dairy farms, the number of farms reporting milk, and the number of all farms, and certain averages and percentages.

TABLE CLXVI.—PRODUCTION OF MILK IN 1899, THE NUMBER OF FARMS REPORTING DAIRY COWS, AND THE NUMBER OF ALL FARMS AND OF DAIRY FARMS, WITH PERCENTAGES AND AVERAGES, BY GEOGRAPHIC DIVISIONS.

GEOGRAPHIC DIVISIONS.	NUMBER OF FARMS, JUNE 1, 1900.					PRODUCTION IN 1899 OF MILK IN GALLONS.	
	Total.	Farms reporting dairy cows.	Dairy farms.	All farms to 1,000 reporting cows.	Dairy farms to 1,000 reporting cows.	Total.	Average, per cow.
The United States	5,739,657	4,514,210	357,578	1,271	79	7,266,392,674	424
North Atlantic	677,506	578,242	174,910	1,172	302	1,827,347,478	523
South Atlantic	962,225	644,320	11,671	1,493	18	492,138,465	356
North Central	2,196,567	1,925,413	108,403	1,141	56	3,609,900,328	425
South Central	1,658,166	1,191,521	34,940	1,392	29	973,950,188	336
Western	242,908	174,399	27,620	1,393	158	362,467,850	418
Alaska and Hawaii	2,285	315	34	7,254	108	588,370	146

For every 1,000 farms in the United States reporting dairy cows, there were 271 without them. The relative number of farms with no dairy cows was lowest in the North Central division, the proportion being 141 to 1,000. In Hawaii, where there were but few dairy cows, and where, until a comparatively few years ago, cattle were valued mainly for their hides and tallow, the number of farms with no dairy cows was 6.3 times as great as the number of those keeping them. In the

South Atlantic division, there were 493 farms without dairy cows to 1,000 with them.

Table CLXVI shows that of every 1,000 farms in the United States keeping dairy cows, only 79 derived their main income from dairy produce. The relative number of dairy farms was greatest in the North Atlantic division, where they constituted 30.2 per cent of farms with dairy cows. The percentage was lowest in the South Atlantic, where only 1.8 per cent of the farms reporting dairy cows were dairy farms.

PRODUCTION OF MILK.

The reported production of milk on farms and ranges in 1899 was 7,266,392,674 gallons, or an average of 424 gallons for every dairy cow on hand, June 1, 1900. Of this milk 49.7 per cent, or nearly one-half, was reported from the North Central division, and 25.1 per cent, or approximately one-half of the remainder, from the North Atlantic. While a greater proportion of the farms in the North Atlantic division made dairying their principal source of income, the larger number of farms in the North Central states gave that division first place in quantity of milk produced and in the total number of cows kept.

The average product per cow was greatest in the North Atlantic division, where cows were kept almost exclusively for dairy purposes. In the North Central and Western divisions cows were of greater importance in the breeding of young animals for veal and beef, which fact accounts for the lower average milk production in those states and territories. Other factors, of which the inferior grade of cows kept must be considered most important, caused the low averages in the South Atlantic and South Central divisions.

Sales and Consumption of Milk on Farms.—Table CLXVII gives, by states and territories, the reported production of milk on farms and ranges in 1899. It gives also the reported quantity of milk sold, and estimates of the quantity utilized in the production of the cream sold and of the butter and cheese made on farms. The milk not included under these four specified heads is tabulated in the sixth column as milk consumed on farms. This table is presented in order that a better idea may be formed of the general correctness of the tables of dairy statistics of 1900, as well as to assist in detecting their defects, some of which will also be pointed out in detail.

TABLE CLXVII.—GALLONS OF MILK PRODUCED ON FARMS IN 1899, AND GALLONS SOLD AND ESTIMATED GALLONS CONSUMED ON THE FARM FOR SPECIFIED PURPOSES, BY STATES AND TERRITORIES.

STATES AND TERRITORIES.	Produced.	Sold.	UTILIZED IN THE PRODUCTION OF—			CONSUMED ON FARMS.[1]	
			Butter.	Cheese.	Cream sold.	Total.	Per farm reporting milk.
The United States	7,266,392,674	2,134,915,342	3,751,107,944	21,284,029	*114,227,641	1,244,857,718	276
North Atlantic division	1,827,347,473	881,479,092	721,995,578	5,861,959	57,433,778	160,577,066	278
Maine	99,586,188	15,979,003	56,609,605	552,633	15,459,032	10,985,916	223
New Hampshire	60,724,590	28,988,306	22,349,638	185,641	3,041,038	6,209,967	276
Vermont	142,042,223	57,566,012	65,921,471	528,657	8,751,804	9,274,279	317
Massachusetts	105,571,873	68,180,759	17,430,917	25,518	12,736,598	7,198,081	256
Rhode Island	12,923,512	9,685,988	1,708,301	3,776	524,265	996,181	246
Connecticut	68,951,862	33,879,466	16,071,262	52,810	10,412,902	8,535,422	397
New York	772,799,352	445,427,888	261,500,316	3,411,917	3,354,263	59,104,968	301
New Jersey	77,714,055	50,726,011	20,630,270	31,690	197,928	6,128,156	225
Pennsylvania	487,033,818	171,045,659	259,773,798	1,114,317	2,955,948	52,144,096	261
South Atlantic division	492,138,465	44,521,955	311,889,291	624,582	1,479,566	133,623,071	207
Delaware	12,681,268	4,988,462	5,704,822	135	80,944	1,906,905	248
Maryland	64,040,517	20,654,446	31,838,317	439,989	743,429	10,364,336	288
District of Columbia	850,349	661,335	12,173	.....	550	176,291	1,043
Virginia	105,068,428	6,889,183	69,670,405	41,206	329,109	28,138,525	222
West Virginia	83,861,660	3,391,523	59,195,951	96,516	213,703	20,963,968	260
North Carolina	89,525,749	1,826,631	59,198,307	37,548	24,888	28,438,375	197
South Carolina	44,031,528	1,186,045	28,526,529	1,405	26,378	14,291,171	175
Georgia	82,438,532	3,920,412	52,890,229	2,907	52,718	25,572,266	175
Florida	9,640,434	1,003,918	4,852,558	4,876	7,848	3,771,234	179
North Central division	3,609,900,328	1,054,806,323	1,886,866,624	6,916,158	51,039,026	610,272,197	317
Ohio	425,870,394	84,543,703	278,429,547	1,517,101	2,360,286	59,019,757	241
Indiana	263,457,239	36,562,105	178,648,386	232,353	1,878,305	46,136,090	239
Illinois	457,106,995	186,549,335	188,727,075	420,531	3,082,926	83,327,128	361
Michigan	309,617,046	55,635,108	210,181,993	430,529	1,271,264	42,098,152	239
Wisconsin	472,274,264	252,450,051	156,587,014	2,126,303	9,012,305	52,098,590	334
Minnesota	304,017,106	103,768,172	144,160,961	377,810	6,632,148	49,078,015	352
Iowa	535,372,240	214,338,442	216,262,508	398,356	18,276,902	86,596,033	412
Missouri	258,207,755	25,954,163	159,281,885	420,471	1,366,981	71,184,255	296
North Dakota	48,845,280	3,177,971	32,125,852	92,145	127,022	13,322,290	380
South Dakota	99,244,975	20,395,625	60,903,395	177,922	318,505	17,449,528	395
Nebraska	190,477,911	23,492,560	120,815,306	343,759	4,367,808	40,958,478	387
Kansas	244,909,123	47,939,088	145,742,702	378,878	1,844,574	49,003,881	327

[1] Uses unreported.

TABLE CLXVII.—GALLONS OF MILK PRODUCED ON FARMS IN 1899, AND GALLONS SOLD AND ESTIMATED GALLONS CONSUMED ON THE FARM FOR SPECIFIED PURPOSES, BY STATES AND TERRITORIES—Continued.

STATES AND TERRITORIES.	Produced.	Sold.	UTILIZED IN THE PRODUCTION OF—			CONSUMED ON FARMS.[1]	
			Butter.	Cheese.	Cream sold.	Total.	Per farm reporting milk.
South Central division	978,950,188	39,480,918	650,731,655	615,472	1,214,273	281,907,870	237
Kentucky	159,311,527	8,932,259	106,562,334	59,487	526,190	43,231,257	228
Tennessee	147,336,961	5,549,194	101,820,936	34,609	124,113	39,808,109	222
Alabama	95,882,103	3,087,433	66,926,874	47,286	149,232	25,671,278	166
Mississippi	97,030,385	2,041,443	66,084,326	37,144	45,050	28,822,422	207
Louisiana	39,251,413	4,356,979	17,213,802	175,635	21,192	17,483,805	273
Texas	251,342,698	8,091,205	167,970,222	176,973	255,233	74,849,065	287
Oklahoma	47,439,853	2,701,471	30,734,756	58,843	46,387	13,898,396	299
Indian Territory	26,493,855	482,082	17,870,002	1,595	13,832	8,126,344	257
Arkansas	109,861,393	4,238,852	75,548,403	23,900	33,044	30,017,194	238
Western division	362,467,850	114,541,919	179,208,046	7,265,842	3,060,998	58,391,045	385
Montana	15,696,214	3,162,568	8,589,252	40,201	180,746	3,723,447	391
Wyoming	5,121,974	698,490	3,109,939	31,625	7,904	1,274,016	329
Colorado	38,440,111	13,170,810	17,263,687	134,139	727,634	7,143,842	383
New Mexico	3,009,657	633,638	1,095,510	89,142	17,853	1,173,514	290
Arizona	3,056,109	1,022,472	1,327,588	43,297	31,036	631,716	258
Utah	25,124,642	9,964,903	9,842,427	220,026	18,216	5,079,070	306
Nevada	4,446,071	1,353,062	1,993,331	122,307	3,701	973,669	578
Idaho	15,122,948	2,789,638	8,821,106	256,038	31,158	3,225,008	249
Washington	50,182,415	14,897,273	25,802,371	197,170	800,552	8,485,049	326
Oregon	48,582,968	10,308,119	28,376,075	607,433	850,020	8,441,321	287
California	153,684,741	56,540,946	72,986,760	5,524,464	392,178	18,240,393	371
Alaska	4,250	684	700	.....	.....	2,866	955
Hawaii	584,120	84,451	416,040	16	.....	83,613	268

[1] Uses unreported.

In preparing the estimates contained in table CLXVII use was made of the numbers that are ordinarily assumed to represent the ratio between the common units of measure of butter, cheese, and cream, and the quantities of milk required to produce the same. It was assumed that the milk necessary to produce a gallon of cream was 5.5 gallons; a pound of butter, 3.5 gallons; and a pound of cheese, 1.3 gallons. These ratios undoubtedly represent the results obtained in the average dairy. The very best farmers secure better results by using mechanical separators and other improved appliances, and by giving their herds particular care; but the reports of the present census show that the results secured by the best dairymen are not realized by the average farmer. In the Northern states the ratio for butter was more frequently above than below 3.5 gallons to the pound, and probably averaged more than 3.8 gallons. In the Southern states, it was more frequently above than below 4.0 gallons.

The ratios employed in the preparation of table CLXVII call for the use in the production of butter on farms of 3,751,107,944 gallons of milk; in the production of cheese, 21,284,029 gallons, and in the production of cream, 114,227,641 gallons. There were sold as milk, 2,134,915,342 gallons, leaving a total of 1,244,857,718 gallons with uses not reported. This is an average of 276 gallons per farm reporting milk. If ratios more nearly expressing the results achieved by the average farmer had been employed, the quantity of milk with uses not reported would have been about 1,000,000,000 gallons, or an average of 221 gallons per farm. To assume, however, that either the larger or smaller quantity was wholly consumed on the farms as human food would be unwarranted by the reports tabulated.

In many reports, particularly from the North Central states, mention was made of the fact that some milk reported was fed to calves raised for veal. An estimate of the value of such milk was made and added to the reported value of products fed to live stock, for the purpose of avoiding duplication of values.

Many defective schedules were received from all parts of the country on which the quantity and value of milk produced were reported, but the disposition of the milk, which was sold or made into butter or cheese, was not reported. These reports were tabulated as received, and the value included in Tables 43 and 44, and table CLXVII, under the heading "consumed on farms." They were very numerous from Vermont, and from Minnesota and a number of other North Central states. It was practically impossible to keep an accurate account of all the farms so reporting, and it was deemed unwise to attempt it, as many of them had only one cow, the milk of which was all consumed at home.

Another class of schedules gave the value of dairy products, but did not report the quantity of milk produced. For these schedules, the quantity of milk production was estimated and tabulated, together with its value, as when both were reported. In estimating the quantity of this milk, consideration was always given to the average quantity and value of milk per cow in the enumeration district.

The greater portion of this milk was made into butter, which was not reported, and of which no estimate is included in table CLXVII. Some basis is found for estimating the quantity of butter thus omitted by noting the number of farms reporting dairy cows and milk, and those reporting butter. The former exceeds the latter by 896,770. Of this number, 60 or 70 per cent sold milk and made no report of butter or cheese produced; the others were farms with dairy reports such as have been described in the two preceding paragraphs. The great majority of these farms reported one or two cows, and if they produced the same average quantity of butter per cow as the farms with detailed reports, their butter production was not less than 45,000,000 pounds. All facts considered, it is believed that the quantity of milk reported from the great dairy sections of the North Atlantic and North Central divisions was smaller than was actually obtained.

In this connection, attention is called to the extraordinarily large average quantity of milk per farm, with uses not reported, that is shown in table CLXVII for the District of Columbia. The high average of 1,043 gallons to a farm reporting is, however, correct. It was due to the small number of farms with dairy cows in the District, among which were several large dairies connected with public institutions which required the milk and cream of many cows in feeding the inmates.

Mention should also be made of the fact that some butter was unquestionably made of which no reports were secured, and of which no account by estimates is included in the general tables of this report. This butter was made on the farms of individuals who sold milk but reported no butter. Great numbers of farmers reporting the sale of milk also reported butter produced, but from 500,000 to 600,000 others selling milk made no such reports, although correspondence proved that a considerable number of them did make butter in 1899. This butter was made almost exclusively for home use, especially at those seasons of the year when the quantity of milk produced was too small to justify its transportation long distances to a factory, and the practice was most common in those sections where the creameries and factories were operated but a portion of the year. The explanation usually made for the omission of reports of this butter was that none was sold. The failure to report butter or other products used for food was commented upon by Superintendent Walker, in his introduction to the volume of Agriculture of the Tenth Census, as already quoted. The quantity of butter made and consumed on farms, and thus unreported, was very large, being not less than 25 pounds to a farm, or 10,000,000 pounds for the country. It is possible that some of the milk for this butter was included in the statements of the enumerators, but most of it was unreported.

Dairy Produce Omitted by Enumerators.—In all parts of the country there were a few cows reported as kept for milk, and yet no dairy produce was given on the schedules, and no statement made of the value of any such produce. When such cows were reported in sections of the country with large dairy interests and but few omissions in the dairy reports, they were separately tabulated, and a correction made in the county reports, by allowing one-half the average quantity of butter and milk sales that were shown for cows with complete reports. These corrections seldom increased these products more than 5 per cent, and more frequently less than 1 per cent was added. In the range states and territories of the West and South, where the dairy interest was but little developed, there were many such reports. For a limited number, corrections were made in the same way as in the dairy states, but the greater number of cows so reported, for which no milk was shown, were tabulated as "cows not kept for milk." This was done because those in charge of the statistics did not wish to assume the responsibility of including unreported dairy produce. It was also deemed advisable to tabulate these cows as "not kept for milk" rather than, as in preceding census reports, to show great numbers of cows reporting but little milk, and so present an average production per cow far below the actual production of all cows for which detailed reports were received.

There is no question that the method adopted has resulted in presenting a statement of the number of dairy cows smaller than actually exists, both in the range states and territories and in the South. Moreover, it concealed a portion of the actual increase in the number of dairy cows that has taken place in the last ten years, but it avoided other and greater defects in the statistics, a few of which have been mentioned. It leaves the responsibility for defects where it belongs—with the enumerators—and the only object of the foregoing explanation is to call attention to the defect in the statistics as compiled. Many thousands of letters were sent to farmers reporting cows with no milk, and replies were received from a great number supplying the omissions, and as a result these defects are doubtless smaller than in any preceding census.

Milk and Cream Sold by Farmers.—The milk sold in 1899 by farmers, according to reports received, was 2,134,915,342 gallons. The cream sold was the equivalent of 114,227,641 gallons of milk. The milk and cream sold were the equivalent of 2,249,142,983 gallons. For substantially the same period of time, the manufactures division of the census reports the purchase by butter and cheese factories and condensed-milk establishments of 1,373,891,509 gallons of milk, and of a quantity of cream equivalent to 136,610,581 gallons additional, making an aggregate of 1,510,502,090 gallons. This leaves an excess of milk and cream sold, equivalent to 738,640,893 gallons of milk to be consumed by the non-farming population.

In table CLXVIII is given, by states and territories, a comparative statement of the quantity of milk and cream sold by the farmers and of the quantity purchased by the factories, including cheese and butter factories and condensed-milk establishments. The purchases are all expressed in their equivalents of milk in gallons.

TABLE CLXVIII.—GALLONS OF MILK AND CREAM SOLD BY FARMERS IN 1899, AS REPORTED TO THE AGRICULTURAL DIVISION, AND GALLONS PURCHASED BY FACTORIES, AS REPORTED TO THE MANUFACTURES DIVISION, BY STATES AND TERRITORIES.

STATES AND TERRITORIES.	SOLD BY FARMERS.			PURCHASED BY FACTORIES.			Excess of sales over purchases.
	Total.	As milk.	As cream.[1]	Total.	As milk.	As cream.[1]	
The United States	2,249,142,983	2,134,915,342	114,227,641	1,510,502,090	1,373,891,509	136,610,581	738,640,893
North Atlantic division	938,912,870	881,479,092	57,433,778	515,491,869	464,180,146	51,311,723	423,421,001
Maine	31,438,035	15,979,003	15,459,032	18,011,026	8,780,649	9,230,377	13,427,009
New Hampshire	32,029,344	28,988,306	3,041,038	14,046,203	12,604,230	1,441,973	17,983,141
Vermont	66,317,816	57,566,012	8,751,804	66,195,246	50,856,365	15,338,881	122,570
Massachusetts	80,917,357	68,180,759	12,736,598	13,734,648	3,197,926	10,536,722	67,182,709
Rhode Island	10,210,253	9,685,988	524,265	355,563	.....	355,563	9,854,690
Connecticut	44,292,368	33,879,466	10,412,902	12,198,057	1,897,839	10,300,218	32,094,311
New York	448,782,151	445,427,888	3,354,263	273,392,236	271,717,600	1,674,636	175,389,915
New Jersey	50,923,939	50,726,011	197,928	5,981,150	5,954,321	26,829	44,942,789
Pennsylvania	174,001,607	171,045,659	2,955,948	111,577,740	109,171,216	2,406,524	62,423,867
South Atlantic division	46,001,521	44,521,955	1,479,566	11,318,691	10,671,791	646,900	34,682,830
Delaware	5,069,406	4,988,462	80,944	2,636,503	2,567,820	68,683	2,432,903
Maryland	21,397,875	20,654,446	743,429	7,809,438	7,231,221	578,217	13,588,437
District of Columbia	661,885	661,395	550	.....	.....	.....	661,885
Virginia	7,218,292	6,889,183	329,109	601,304	601,304	.....	6,616,988
West Virginia	3,605,226	3,391,523	213,703	144,500	144,500	.....	3,460,726
North Carolina	1,851,518	1,826,631	24,887	.....	.....	.....	1,851,518
South Carolina	1,212,423	1,186,045	26,378	.....	.....	.....	1,212,423
Georgia	3,973,130	3,920,412	52,718	126,946	126,946	.....	3,846,184
Florida	1,011,766	1,003,918	7,848	.....	.....	.....	1,011,766
North Central division	1,105,845,349	1,054,806,323	51,039,026	904,695,092	825,871,801	78,823,291	201,150,257
Ohio	86,903,989	84,543,703	2,360,286	47,942,648	44,119,279	3,823,369	38,961,341
Indiana	38,440,410	36,562,105	1,878,305	11,509,876	10,691,742	818,134	26,930,534
Illinois	189,632,261	186,549,335	3,082,926	125,014,634	122,216,871	2,797,763	64,617,627
Michigan	56,906,372	55,635,108	1,271,264	38,814,966	36,926,114	1,888,852	18,091,406
Wisconsin	261,462,356	252,450,051	9,012,305	250,334,660	232,207,313	18,127,347	11,127,696
Minnesota	110,400,320	103,768,172	6,632,148	110,258,669	100,320,991	9,937,678	141,651
Iowa	232,615,344	214,338,442	18,276,902	217,193,098	186,593,485	30,599,613	15,422,246
Missouri	27,321,144	25,954,163	1,366,981	5,210,755	4,828,502	382,253	22,110,389
North Dakota	3,304,993	3,177,971	127,022	1,397,784	1,397,784	.....	1,907,209
South Dakota	20,714,130	20,395,625	318,505	16,634,577	16,557,874	76,703	4,079,553
Nebraska	28,360,368	23,492,560	4,867,808	27,781,377	21,113,063	6,668,314	578,991
Kansas	49,783,662	47,939,088	1,844,574	52,602,048	48,898,783	3,703,265	[2] 2,818,386
South Central division	40,695,191	39,480,918	1,214,273	3,084,152	2,428,329	655,823	37,611,039
Kentucky	9,458,449	8,932,259	526,190	718,474	101,822	616,652	8,739,975
Tennessee	5,673,307	5,549,194	124,113	669,489	669,489	.....	5,003,818
Alabama	3,236,665	3,087,433	149,232	89,882	89,882	.....	3,146,783
Mississippi	2,086,493	2,041,443	45,050	102,832	102,832	.....	1,983,661
Louisiana	4,378,171	4,356,979	21,192	.....	.....	.....	4,378,171
Texas	8,346,438	8,091,205	255,233	849,436	810,265	39,171	7,497,002
Oklahoma	2,747,858	2,701,471	46,387	232,302	232,302	.....	2,515,556
Indian Territory	495,914	482,082	13,832	.....	.....	.....	495,914
Arkansas	4,271,896	4,238,852	33,044	421,737	421,737	.....	3,850,159
Western division	117,602,917	114,541,919	3,060,998	75,912,286	70,739,442	5,172,844	41,690,631
Montana	3,343,314	3,162,568	180,746	94,634	94,634	.....	3,248,680
Wyoming	706,394	698,490	7,904	78,118	78,118	.....	628,276
Colorado	13,898,444	13,170,810	727,634	6,445,364	5,047,945	1,397,419	7,453,080
New Mexico	651,491	633,638	17,853	.....	.....	.....	651,491
Arizona	1,053,508	1,022,472	31,036	1,666,943	1,666,943	.....	[2] 613,435
Utah	9,983,119	9,964,903	18,216	9,269,132	9,167,328	101,804	713,987
Nevada	1,356,763	1,353,062	3,701	1,723,420	1,723,420	.....	[2] 366,657
Idaho	2,820,796	2,789,638	31,158	1,368,288	1,332,077	36,211	1,452,508
Washington	15,697,825	14,897,273	800,552	10,537,791	8,477,811	2,059,980	5,160,034
Oregon	11,158,139	10,308,119	850,020	6,746,142	5,940,925	805,217	4,411,997
California	56,933,124	56,540,946	392,178	37,982,454	37,210,241	772,213	18,950,670
Hawaii	84,451	84,451	.....	.....	.....	.....	84,451
Alaska	684	684	.....	.....	.....	.....	684

[1] Expressed in term of milk, 1 gallon of cream to 5½ of milk.

[2] Deficiency.

Comparing the total quantities of milk and cream sold by farmers with that purchased by factories, there is found a considerable excess of that sold in all states and territories excepting Vermont, Minnesota, Nebraska, Kansas, Arizona, and Nevada. With these exceptions, there is a substantial agreement in the two reports of the census. In many states, however, there are marked variations in the quantities of cream sold and purchased. Ohio, Michigan, Wisconsin, Iowa, Kentucky, Colorado, Utah, Idaho, Washington, and California reported more cream purchased by factories than sold by farmers. This variation required considerable correspondence on the part of the division of agriculture. It was found that many factories in these states purchased milk and paid according to the cream secured by aid of the separator. When milk is taken by the farmers to the factory or skimming station, it is weighed and the farmer given a ticket with a statement of such weight, and later, in a monthly statement, he has a report of the cream content. The farmer in such cases ordinarily speaks of selling milk, and so reports the transaction to the census. Some farmers with whom correspondence was conducted furnished the office their original milk receipts. The factory owner speaks of the same transaction as the purchase of cream; hence the apparent discrepancy between the figures of the two reports. The total sales of milk and cream by the farmers and the corresponding purchases by the factories as given in columns one and four of table CLXVIII may be accepted as approximately correct. Less dependence can be placed upon the individual statements concerning the milk and cream for the reasons stated.

ERRORS IN DAIRY STATISTICS.

Cows and Dairy Produce Omitted in the Statistics of Arizona and Nevada. The reports of the two divisions of the census as presented in table CLXVIII show sales by farmers and purchases by factories that harmonize for 46 of the 52 states and territories. Of the six in which the reports do not harmonize, attention is called in particular to Arizona and Nevada, both of which are in the range country. For these, the enumerators reported great numbers of cows without indicating the existence of any dairy products. The great majority of such cows were tabulated as "not kept for milk." The total quantity of milk purchased by factories, as reported by the division of manufactures, demonstrates that some of the cows tabulated as "not kept for milk" were dairy cows, and that they must have produced considerable quantities of milk. The quantity of milk purchased by factories in Arizona indicates the sale of 1,000,000 gallons of milk not reported on farm schedules, and the quantity for Nevada was 460,000 gallons. The first constituted the milk of 6,000 cows, and the latter of 1,400. Additions to the extent of these figures should be made to the totals given in Tables 43 and 44, and it is possible that the totals of these tables should be still further increased to account for the dairy products made on farms but not reported.

Butter Fat Probably Reported as Butter.—In Vermont, Minnesota, Kansas, and Nebraska the factories reported more milk and cream purchased than the farmers reported sold. The cause of such variation is quite different from that in Arizona and Nevada. In the first-named states there is a well-organized system of creameries which usually purchase milk and pay for the same on the basis of the results of the Babcock tests. The statements of accounts made by the factories under this system show the pounds of butter fat contained in the milk purchased. Where the fatty content of purchased milk is accounted as "butter fat" rather than as "cream," the farmers are found to take a different view of the transaction from that described in a foregoing paragraph for Wisconsin and some other states. They appear, as a rule, to regard a pound of butter fat as the equivalent of a pound of butter, and in many cases speak of their dealings with the creameries as selling butter.

The variation in the sales and purchases of milk and cream as reported by the divisions of agriculture and manufactures clearly suggests the possibility that, in these four states, the butter fat sold was reported by some farmers as butter. If this interpretation be valid, a correction should be made in the totals of Tables 43 and 44. The butter product of the four states should be decreased by 324,000 pounds for Vermont, 2,781,000 pounds for Minnesota, 1,163,000 pounds for Nebraska, and 2,342,000 pounds for Kansas. The quantity of milk sold should be increased in Vermont by 1,134,000 gallons, in Minnesota by 9,733,500 gallons, in Nebraska by 4,070,500 gallons, and in Kansas by 8,197,000 gallons. With these changes the reports of the divisions of agriculture and manufactures fully harmonize. The possible excess in the quantity of butter reported on farms, due to the supposed returns of butter fat as butter, aggregates 7,400,000 pounds, or 0.7 per cent of the amount included in the tabulation for the country. The total correction for milk sold in these four states, and in Arizona and Nevada, is 24,595,000 gallons, or 1.1 per cent.

PER CAPITA MILK SUPPLY OF NONFARMING POPULATION.

In giving a summary of the number of cows in the United States not on farms or ranges, attention has already been called to the fact that those cows should not be considered as contributing in any great degree to the milk supply of the people outside the families who kept them. The average cow of this kind did not, in all probability, furnish milk for a family of more than five persons. If the assumption previously stated

at length be correct, then these cows not on farms furnished milk to not more than 4,865,165 persons out of a total urban and suburban population, exclusive of Hawaii, of 36,580,872. This leaves 31,715,707 persons as the probable number of inhabitants living in cities who were furnished with milk produced on farms. Table CLXVIII shows the excess of farm sales over factory purchases to have been 738,640,893 gallons. This would give an average quantity of milk purchased by the urban and suburban population of 23 gallons per capita. An inclusion of the condensed milk purchased would increase this by a little less than 1 gallon. Similar calculations give as the average consumption, in the North Atlantic division, 30 gallons; South Atlantic, 14 gallons; North Central, 18 gallons; South Central, 18 gallons; and Western, 24 gallons.

These averages do not take into account the possibility of omission, in the reports of the manufactures division, of some creameries and other kindred establishments in the country in 1899. In preceding census reports considerable numbers must have been omitted, and while it is believed that the number in 1900 was less than ever before, it is very probable that some such factories escaped the enumerators, and that the supply of milk for urban consumption is less than appears from the last column of table CLXVIII.

Another factor to be considered in this connection is that the average quantity of milk used in the production of a pound of butter, according to the reports of the division of manufactures, was 25.6 pounds. This is a little below the quantity hitherto supposed to be necessary. This fact raises the question whether some of the factories, in making their reports of the cream equivalent of the butter fat purchased by them, have not used too great a divisor and thus made the quantity of cream reported too small. Any error of this kind affects table CLXVIII by unduly increasing the quantity reported in the last column. Taking account of all these facts, the conclusion is reached that the average consumption of purchased milk was somewhat less than is indicated by the averages for the urban and suburban populations presented by deduction from table CLXVIII, and that this average for the country was not over 20 gallons per capita, or a little more than a quart per day for a family of five persons.

BUTTER.

Made on Farms in 1899.—Tables 43 and 44 present a number of facts concerning the dairy industry never before exhibited in a census report. These tables give the number of pounds of butter made and sold, and the receipts from these sales. They also give the number of farms reporting butter.

Table CLXIX gives a brief summary of these facts by geographic divisions.

TABLE CLXIX.—POUNDS OF BUTTER MADE AND SOLD ON FARMS IN 1899, AND AMOUNT RECEIVED FROM SALES, BY GEOGRAPHIC DIVISIONS.

GEOGRAPHIC DIVISIONS.	Farms reporting butter.	Pounds made.	Pounds sold.	Received from sales.
The United States...	3,617,440	1,071,745,127	518,139,026	$86,606,446
North Atlantic	427,220	206,284,451	145,773,945	28,346,852
South Atlantic	507,857	89,111,226	24,432,566	4,214,943
North Central	1,599,111	539,104,750	284,995,556	42,695,824
South Central	969,678	185,923,330	32,246,106	5,231,218
Western	122,500	51,202,299	30,594,594	6,082,141
Alaska and Hawaii.....	74	119,071	96,259	35,473

Of the 5,739,657 farms in the United States, 4,514,210, or 78.6 per cent, kept cows and reported milk. Of the number reporting dairy cows, 3,617,440, or 63.0 per cent of all farms, reported butter. The reported quantity of butter produced was 1,071,745,127 pounds, an average of 296 pounds per farm reporting. As the milk required for making this butter constituted 51.6 per cent of that produced on farms, it may be assumed that an equal percentage of the cows on farms, or 8,844,000, were required to furnish the butter reported, which was approximately 121 pounds per cow. The average farm reporting butter utilized in its production the milk of 2.44 cows.

Over one-half, or 50.3 per cent, of the butter reported from farms was made in the North Central division, and 206,284,451 pounds, or 19.2 per cent, in the North Atlantic. The North Atlantic division, in proportion to the number of cows and average yield of milk per cow, reported a very small quantity of butter made on farms. This was due to the extensive development of the shipping system in those states and the great quantities of milk used in supplying the large cities of that section.

Of the butter made, the farms in the North Atlantic division sold 28.2 per cent; in the South Atlantic, 4.7 per cent; in the North Central, 55.0 per cent; in the South Central, 6.2 per cent; and in the Western, 5.9 per cent. The people in the South kept a smaller number of cows and had a smaller quantity of products for sale, the cows being kept in that section almost wholly for the raising of live stock and the production of dairy produce for home use.

Made in Creameries and Butter Factories.—The manufactures division of the present census reports the production of 420,126,546 pounds of butter in factories and creameries. Of this butter, 328,956,590 pounds, of a value of $63,961,893, were packed solid, and 91,169,956 pounds, of a value of $20,117,861, were sold as prints or rolls. The total value of this butter was $84,079,754, an average of 20 cents per pound.

In table CLXX the butter production of farms and factories for the census year 1899 is consolidated to

show the total reported production of butter in the United States. The fact that the business year for which the factories made reports to the division of manufactures varies somewhat from the calendar year, which is the period for which the farmers reported to the division of agriculture, does not materially affect the value of this statement.

TABLE CLXX.—POUNDS OF BUTTER MADE IN 1899 ON FARMS AND IN FACTORIES, BY STATES AND TERRITORIES.

STATES AND TERRITORIES.	Total.	Reported by farms.	Reported by factories.
The United States	1,491,871,673	1,071,745,127	420,126,546
North Atlantic division	326,018,546	206,284,451	119,734,095
Maine	20,635,572	16,174,173	4,461,399
New Hampshire	11,419,881	6,385,611	5,034,270
Vermont	41,288,087	18,834,706	22,453,381
Massachusetts	9,572,181	4,980,262	4,591,919
Rhode Island	636,281	488,086	148,195
Connecticut	8,480,194	4,591,789	3,888,405
New York	115,408,222	74,714,376	40,693,846
New Jersey	7,219,882	5,894,363	1,325,519
Pennsylvania	111,358,246	74,221,085	37,137,161
South Atlantic division	92,883,312	89,111,226	3,772,086
Delaware	2,599,338	1,629,949	969,889
Maryland	11,638,378	9,096,662	2,541,716
District of Columbia	3,478	3,478	.....
Virginia	20,076,351	19,905,830	170,521
West Virginia	16,954,129	16,913,129	41,000
North Carolina	16,913,802	16,913,802	.....
South Carolina	8,150,437	8,150,437	.....
Georgia	15,160,454	15,111,494	48,960
Florida	1,386,445	1,386,445	.....
North Central division	810,841,697	539,104,750	271,736,947
Ohio	87,638,930	79,551,299	8,087,631
Indiana	54,595,879	51,042,396	3,553,483
Illinois	86,548,762	52,493,450	34,055,312
Michigan	67,872,710	60,051,998	7,820,712
Wisconsin	106,552,649	44,739,147	61,813,502
Minnesota	82,363,315	41,188,846	41,174,469
Iowa	139,022,552	61,789,288	77,233,264
Missouri	46,949,726	45,509,110	1,440,616
North Dakota	9,642,003	9,178,815	463,188
South Dakota	23,573,077	17,400,970	6,172,107
Nebraska	46,244,839	34,518,659	11,726,180
Kansas	59,837,255	41,640,772	18,196,483
South Central division	186,856,187	185,923,330	932,857
Kentucky	30,631,044	30,446,381	184,663
Tennessee	29,299,519	29,091,696	207,823
Alabama	19,139,321	19,121,964	17,357
Mississippi	18,929,761	18,881,236	48,525
Louisiana	4,918,229	4,918,229	.....
Texas	48,244,206	47,991,492	252,714
Oklahoma	8,834,559	8,781,359	53,200
Indian Territory	5,105,715	5,105,715	.....
Arkansas	21,753,833	21,585,258	168,575
Western division	75,152,860	51,202,299	23,950,561
Montana	2,488,310	2,454,072	34,238
Wyoming	918,054	888,554	29,500
Colorado	6,499,121	4,932,482	1,566,639
New Mexico	313,003	313,003	.....
Arizona	803,394	379,311	424,083
Utah	5,331,336	2,812,122	2,519,214
Nevada	1,192,925	569,523	623,402
Idaho	2,952,886	2,520,316	432,570
Washington	10,576,527	7,372,106	3,198,421
Oregon	10,082,807	8,107,450	1,975,357
California	34,000,497	20,853,360	13,147,137
Alaska	200	200	.....
Hawaii	118,871	118,871	.....

The five states which produced the greatest quantity of butter on farms were, in the order named, Ohio, New York, Pennsylvania, Iowa, and Michigan. Their combined product was 350,328,046 pounds, or 32.7 per cent of the total made on farms. The five states which produced most in factories were Iowa, Wisconsin, Minnesota, New York, and Pennsylvania. Their combined product was 258,052,242 pounds, or 61.4 per cent of the total made in factories. Only New York, Pennsylvania, and Iowa are in both lists. Taking into account the combined product of farms and factories, the five states leading in butter were Iowa, New York, Pennsylvania, Wisconsin, and Ohio, showing a slight variation from the order of either farm or factory production. These five states produced 559,980,599 pounds of butter, or 37.5 per cent of the total farm and factory output.

The average value of butter made on farms was 16.7 cents a pound and that made in creameries and factories 20.0 cents. The factory system involves the cost of transporting milk and cream to the factories, which is the only item of expense that is not also connected with butter making on farms. A liberal estimate for the cost of such transportation would probably be 1.5 cents a pound. The result, making that allowance, shows a gain to the farmer, by the added price realized for his product, of 1.8 cents a pound. On the quantity of butter made in factories this would aggregate $7,562,278, approximately the sum which the factory system adds to the income of the farmers every year.

The benefit of the factory system to the farmers of the country as a whole is, however, represented by a much larger amount than that last stated. It has been the means of introducing better systems of dairying and butter making among farmers who are unable to send milk to factories, and this has greatly increased the average value of American dairy products in the last half century. Could the methods now practiced in creameries be put into operation by all butter makers, the value of the butter made and sold on farms would be increased 1.8 cents a pound, which would add $9,326,502 per annum to the income of the farmers.

The factory system is being rapidly extended. Its product of butter, which was reported as 181,284,916 pounds in 1889, was 420,126,546 pounds in 1899, a gain of 131.7 per cent. Doubtless, a part of this apparent gain was due to a more perfect enumeration of the factories in the latter year. It is probable also, that some of the factories were overlooked in 1900, and that the figures given for factory production in that year are below rather than above the actual quantity.

The extension of the factory system involves an increase in the number of cows upon the farms near which the factory is located. A factory can not be successfully operated among farmers when the number of dairy cows kept by each is only one or two, which in 1899 was the average number in nearly all localities of the South Atlantic and South Central divisions and in many parts of the other divisions. Improvement in dairy methods, the growing demand for good butter, and the increasing use of milk in the dietary of the people are likely to be fully as effective in the next few years in increasing the average number of cows per farm, as in stimulating the production of butter and cheese in factories. Hence, it is unlikely that there will be any great decrease in the farm production of butter, although

the next decade will probably show greater additions to the factory output than any ten years of the past.

Made Elsewhere Than on Farms or in Factories.—Attention has been called to the fact that the 973,033 cows not on farms were nearly all kept by persons with one or two cows each, and that they supplied the milk and cream used by not less than 750,000 families. In addition, butter was made for home consumption from the milk of a large number of these cows. If it be assumed that one-third only of such milk was utilized for butter making, a proportion somewhat less than is used on farms having the same number of cows, this would give an addition of nearly 40,000,000 pounds to the country's production of butter.

CHEESE.

Made on Farms in 1899.—A summary of the cheese product of the farms of the United States is given in table CLXXI.

TABLE CLXXI.—POUNDS OF CHEESE MADE AND SOLD ON FARMS IN 1899, AND AMOUNT RECEIVED FROM SALES, BY GEOGRAPHIC DIVISIONS.

GEOGRAPHIC DIVISIONS.	Farms reporting cheese.	Pounds made.	Pounds sold.	Received from sales.
The United States	15,670	16,372,330	14,692,542	$1,342,444
North Atlantic	3,894	4,509,199	4,228,390	404,719
South Atlantic	852	480,448	436,703	25,040
North Central	7,294	5,320,122	4,649,641	399,971
South Central	1,371	473,440	308,907	28,217
Western	2,258	5,589,109	5,068,901	484,497
Alaska and Hawaii	1	12	.....	.....

The number of farms making cheese in 1900 was only 15,670, or 1 to every 366 in the country. Of these farms, about one-half were in the North Central division and one-half of the remainder in the North Atlantic. The Western division produced nearly six times as much as both the more populous South Central and South Atlantic divisions combined.

Made in Factories.—The manufactures division of the Twelfth Census reports the production of 281,972,324 pounds of cheese, while the total reported production on farms was only 16,372,330. Cheese can not, like butter, be made from the milk of a single cow, as its economic production requires milk in large quantities, and is, therefore, confined to localities having a great number of dairy cows. In such localities the factory system is steadily monopolizing the manufacture of cheese. The gain in factory cheese making keeps pace with the increased demand for cheese, so that the quantity of that product made on farms remains practically unchanged for the country as a whole.

Table CLXXII presents a statement of the total factory and farm production of cheese in 1899.

TABLE CLXXII.—POUNDS OF CHEESE MADE IN 1899 ON FARMS AND IN FACTORIES, BY STATES AND TERRITORIES.

STATES AND TERRITORIES.	Total.	Reported by farms.	Reported by factories.
The United States	298,344,654	16,372,330	281,972,324
North Atlantic division	148,218,271	4,509,199	143,709,072
Maine	979,048	425,102	553,946
New Hampshire	221,080	104,339	116,741
Vermont	5,119,764	406,659	4,713,105
Massachusetts	270,171	19,629	250,542
Rhode Island	6,751	6,751	.....
Connecticut	361,886	40,623	321,263
New York	130,010,584	2,624,552	127,386,032
New Jersey	124,377	24,377	100,000
Pennsylvania	11,124,610	857,167	10,267,443
South Atlantic division	593,308	480,448	112,860
Delaware	15,104	104	15,000
Maryland	338,453	338,453	.....
District of Columbia	.....	.....	.....
Virginia	88,697	31,697	57,000
West Virginia	115,103	74,243	40,860
North Carolina	28,883	28,883	.....
South Carolina	1,081	1,081	.....
Georgia	2,236	2,236	.....
Florida	3,751	3,751	.....
North Central division	133,946,093	5,320,122	128,625,971
Ohio	19,323,528	1,167,001	18,156,527
Indiana	1,438,901	178,733	1,260,168
Illinois	9,378,604	323,485	9,055,119
Michigan	10,753,758	331,176	10,422,582
Wisconsin	79,384,298	1,635,618	77,748,680
Minnesota	3,575,642	290,623	3,285,019
Iowa	4,549,065	306,428	4,242,637
Missouri	1,396,190	323,439	1,072,751
North Dakota	296,280	70,881	225,399
South Dakota	557,642	136,863	420,779
Nebraska	578,030	264,430	313,600
Kansas	2,714,155	291,445	2,422,710
South Central division	654,909	473,440	181,469
Kentucky	73,759	45,759	28,000
Tennessee	32,823	26,622	6,201
Alabama	46,374	36,374	10,000
Mississippi	28,572	28,572	.....
Louisiana	135,104	135,104	.....
Texas	194,423	136,133	58,290
Oklahoma	111,642	45,264	66,378
Indian Territory	1,227	1,227	.....
Arkansas	30,985	18,385	12,600
Western division	14,932,061	5,589,109	9,342,952
Montana	30,924	30,924	.....
Wyoming	25,327	24,327	1,000
Colorado	1,568,441	103,184	1,465,257
New Mexico	68,571	68,571	.....
Arizona	407,057	33,305	373,752
Utah	2,043,430	169,251	1,874,179
Nevada	174,232	94,082	80,150
Idaho	391,332	196,952	194,380
Washington	1,633,796	151,669	1,482,127
Oregon	1,662,820	467,256	1,195,564
California	6,926,131	4,249,588	2,676,543
Alaska and Hawaii	12	12	.....

The quantity of cheese made on farms has been steadily decreasing for many years, and will, in all probability, continue to decrease until practically none is made outside of the factories. The five states reporting the greatest amount of cheese made in factories and on farms were New York, Wisconsin, Ohio, Pennsylvania, and Michigan. Their combined product was 250,596,778 pounds, or 84.0 per cent of all made in the United States.

Table CLXXIII presents, by states and territories, the average prices at which the farmers reported the sale of milk, cream, butter, and cheese.

TABLE CLXXIII.—AVERAGE AMOUNT RECEIVED FOR MILK, CREAM, BUTTER, AND CHEESE SOLD BY FARMERS IN 1899, BY STATES AND TERRITORIES.

STATES AND TERRITORIES.	Milk, per gallon.	Cream, per gallon.	Butter, per pound.	Cheese, per pound.
	Cents.	*Cents.*	*Cents.*	*Cents.*
The United States	8.7	42.6	16.7	9.1
North Atlantic division	9.7	40.0	19.4	9.6
Maine	14.8	36.6	20.6	11.4
New Hampshire	11.2	42.3	22.4	12.6
Vermont	7.4	37.4	19.7	10.7
Massachusetts	14.2	37.6	24.0	13.2
Rhode Island	16.1	74.6	25.8	13.5
Connecticut	13.6	41.1	23.9	13.4
New York	8.1	51.2	19.0	9.6
New Jersey	12.5	87.6	21.8	10.5
Pennsylvania	10.1	46.5	18.4	7.7
South Atlantic division	12.9	56.9	17.3	5.7
Delaware	10.6	73.9	20.8	.....
Maryland	11.4	51.8	18.4	4.5
District of Columbia	22.7	125.0	25.0	.....
Virginia	13.7	54.0	16.6	9.8
West Virginia	15.7	55.5	15.2	9.8
North Carolina	13.3	92.0	17.2	8.5
South Carolina	12.0	97.1	17.8	6.2
Georgia	14.5	81.2	17.8	12.9
Florida	26.2	104.9	24.3	8.9
North Central division	7.2	43.7	15.0	8.6
Ohio	9.8	49.8	14.6	6.8
Indiana	10.5	45.1	14.5	8.8
Illinois	7.8	46.1	16.3	9.4
Michigan	8.3	54.0	14.9	9.3
Wisconsin	6.2	41.9	16.7	8.7
Minnesota	6.8	45.8	15.6	10.0
Iowa	5.7	40.6	15.5	10.2
Missouri	11.5	52.0	14.9	7.1
North Dakota	9.4	61.9	15.4	10.4
South Dakota	5.6	39.4	13.7	10.0
Nebraska	7.1	42.8	13.1	10.0
Kansas	6.3	50.0	13.3	10.1
South Central division	14.4	56.2	16.2	9.1
Kentucky	14.5	47.8	16.2	10.0
Tennessee	12.2	54.7	15.8	10.5
Alabama	12.6	54.6	18.5	7.3
Mississippi	13.7	59.4	16.7	13.4
Louisiana	22.6	69.8	19.6	7.5
Texas	15.8	71.1	16.8	9.8
Oklahoma	10.9	58.9	12.8	10.6
Indian Territory	12.1	32.5	15.9	10.0
Arkansas	10.5	82.2	15.7	10.6
Western division	10.9	60.4	19.9	9.6
Montana	19.3	107.5	24.2	16.0
Wyoming	14.0	51.6	21.3	8.7
Colorado	13.3	57.8	21.4	12.1
New Mexico	23.3	93.6	24.9	13.4
Arizona	23.5	68.5	25.0	14.9
Utah	6.5	91.0	19.1	10.0
Nevada	13.9	126.0	21.8	10.0
Idaho	12.1	82.3	19.4	10.2
Washington	9.9	53.9	21.1	11.9
Oregon	10.8	47.5	19.0	11.0
California	10.3	79.2	19.1	9.1
Alaska	40.1	.....	36.0	.....
Hawaii	29.5	.....	36.9	.....

The average for milk was highest in the two Southern divisions, and that for butter and cheese, in the North Atlantic and Western. The higher price of milk in the South arises from the difficulty of keeping and transporting it, while the higher price of butter and cheese in the North Atlantic states is due to the splendid markets afforded by the great cities of that section. The small relative quantity of dairy produce manufactured in the Western division, and also the nearness of the mining centers of that division to the local markets, assure, for the present at least, an unsurpassed market for the produce of the western dairymen.

GENERAL SUMMARY OF THE DAIRY INDUSTRY.

Table CLXII, compiled from Table 16, gave an exhibit of the farm property and products of the 357,578 farms which derived their income principally from dairy produce. A statement of the investments in the dairy industry must take into account the value of these farms, as well as the value of the cows on farms and of those not on farms. Under these circumstances, the following becomes a rough statement of the capital which, in 1900, was invested in the dairy business:

Value of 357,578 dairy farms, with buildings, live stock, etc	$1,693,467,302
Value of 13,717,941 cows on other farms	407,147,489
Value of 973,033 cows not on farms	28,487,115
Value of fixed capital of factories, including condenseries	36,491,799
Total investment in the dairy industry of the United States	2,165,593,705

Not including the sale of products other than dairy produce on dairy farms, and not including any statement of calves raised from dairy cows, the income derived by farmers, ranchmen, and others keeping dairy cows in 1899 may be summed up as follows:

Farm income from dairy produce	$472,369,255
Income from cows not on farms (estimated)	26,716,790
Total income from dairy cows	499,086,045

In preparing the foregoing estimate of the income from dairy cows not on farms, it was assumed that they produced an average income equal to that from the dairy cows on farms. If to the foregoing total be added the amount by which the value of dairy produce was increased in factories, $7,577,244, the total value of the dairy produce of the United States is found to be $506,663,289. This approximately represents the value of that portion of the products consumed on farms as food, and the value of the remainder as it was sold in its completed form to the first purchaser thereof.

Of incidental statistics of the dairy industry the following presents an interesting summary:

Cows kept for milk on farms ..... number	17,139,674
Cows kept for milk not on farms ..... do	973,033
Total number of cows kept for milk .. do	18,112,707
Milk produced on farms ..... gallons	7,266,392,674
Milk produced not on farms (estimated) .... do	462,190,676
Total production of milk ..... do	7,728,583,350
Butter made and reported by farms ..... pounds	[1] 1,064,345,127
Reported by factories ..... do	420,126,546
Unreported by farms (estimated) ..... do	[2] 50,000,000
Unreported not on farms (estimated) ..... do	40,000,000
Total production of butter ..... do	1,574,471,673
Cheese made on farms ..... do	16,372,330
Cheese made in factories ..... do	281,972,324
Total cheese production ..... do	298,344,654
Condensed milk produced ..... do	186,921,787
Sales of milk and cream for use as food ... gallons	783,758,226

[1] From the butter as reported in Table 43 has been deducted 7,400,000 pounds, the quantity that was probably reported erroneously as butter in Minnesota, Nebraska, Kansas, and Vermont.

[2] Thirty-five million pounds estimated as made from milk reported and no detailed dairy statement of product made, and 15,000,000 pounds for home use by the farmers selling milk, but with no report of butter.

COMPARISON OF DAIRY STATISTICS FOR 1900 WITH THOSE OF EARLIER CENSUS YEARS.

Every improvement in the accuracy and completeness of statistics must make more difficult the proper comparison with the less complete and less accurate statistics of previous years. In no class of census statistics is this more forcibly illustrated than in that relating to dairy produce and dairy cows. Prior to 1870 the census did not provide for any enumeration of dairy produce other than that of the quantities of butter and cheese made on farms. But for 1870 and subsequent censuses inquiries were also made concerning the milk produced and its disposal. While these additional inquiries complicated the work of the enumerator, and may have tended to greater carelessness on his part in completing the schedules, the answers thereto became a check upon the other inquiries relating to the subject, and thus assisted the Census Office in detecting and correcting errors.

At every census since the Seventh, there have been many schedules which reported milch or dairy cows on farms, but no dairy produce. A comparison of the schedules of the census of agriculture for the various census years since 1850, with those for 1900, indicates a nearly uniform proportion of this class of farms, constituting from 1 to 5 per cent of all farms reporting cows in the best dairy sections, while in states with less developed dairy interests the proportion has often been much larger.

Practically no effort was made prior to 1890 to supply the omissions by correspondence; in fact, no adequate provision to secure the post-office addresses of the farmers was made until 1900, thus precluding direct communication with them. In previous census reports the statistics of dairy products generally comprised only the milk, butter, and cheese reported, without taking into consideration omitted reports of such products. Consequently the quantities of dairy products reported by the censuses were always below the actual production of the country. The number of milch cows for which no dairy products were reported was proportionately largest in the Southern states; but it is believed that in 1900 this shortage was less than one-half of what it had previously been. To the degree in which the defects of preceding census reports have been overcome, the statistics for 1900 in comparison with those of earlier years, show an increase in dairy produce greater than that which has actually taken place.

The separate classification for 1900 of milch or dairy cows, as against all other cows, has been amply justified from a statistical standpoint. A brief reference to the returns from Hidalgo county, Tex., will serve to emphasize this fact. For 1890 this county reported 32,245 milch cows and 188,591 gallons of milk, or an average of only 6 gallons per cow. The greater quantity was reported from farms with a few cows, with an average product of about 140 gallons of milk per cow. This average was reduced by including with the milch cows over 30,000 cows on a number of ranches, while the milk and butter produced on these ranches could have been derived from 200 dairy cows. For 1900 this county reported, in accordance with the new classification, only 516 dairy cows and 25,464 other cows, and 81,000 gallons of milk, or an average of 157 gallons per dairy cow. It will be seen that the average yield of milk apparently increased from 6 gallons in 1890 to 157 gallons per cow in 1900, an increase mainly due to the more reliable basis of computation created by the elimination of the range cows.

Dairy Cows to 100,000 Inhabitants.—According to the census reports from 1850 to 1900, the number of milch cows to 100,000 population did not greatly change from decade to decade. It was as follows: 1850, 27,531; 1860, 27,305; 1870, 23,174; 1880, 24,809; and 1890, 26,368. While in number this proportion varied but little, the quality of the cows was constantly improving. With each decade greater numbers of cows were used for dairy purposes exclusively, and the average product per cow constantly increased. The average consumption of dairy products was also growing, and the increase was met, not by an increase in the proportionate number of cows to 100,000 inhabitants, but by a gain in the average production per cow.

The number of dairy cows reported in 1900 to 100,000 inhabitants was 22,463, or 13.1 per cent less than the average number for the preceding five census reports. But for reasons heretofore stated, and illustrated by the references to Hidalgo county, Tex., this decrease is more apparent than real, and there is every reason to believe that in 1900, for each 100,000 inhabitants, as many cows were actually used in dairying on farms as in any preceding census year. There has been, however, a great relative decrease in the number of dairy cows not on farms. They were as numerous in the small cities, villages, and hamlets as fifty years ago, but relatively few were reported from cities of 25,000 inhabitants and over. In proportion to the growth of these cities, and the consequent relative decrease in the number of cows not on farms, the total number of dairy cows to 100,000 inhabitants has decreased in the last half century. No exact figures relating to the subject can be given, as the census of 1900 was the first to secure the enumeration of live stock not on farms.

Milk Production in 1899 and 1889.—Table CLXXIV presents a statement, by geographic divisions, of the increase in the reported milk production of the United States.

TABLE CLXXIV.—GALLONS OF MILK PRODUCED ON FARMS IN 1899 AND 1889, WITH PER CENT OF INCREASE, BY GEOGRAPHIC DIVISIONS.

GEOGRAPHIC DIVISIONS.	1899	1889	Per cent of increase.
The United States	7,266,392,674	5,210,125,567	39.5
North Atlantic	1,827,347,473	1,435,739,255	27.3
South Atlantic	492,138,465	332,728,677	47.9
North Central	3,609,900,328	2,719,414,765	32.7
South Central	973,950,188	519,693,663	87.4
Western	362,467,850	202,549,207	79.0
Alaska and Hawaii	588,370	(1)	.....

[1] No report in 1890.

The highest per cent of gain shown in this table was for the South Central division, and the lowest for the North Atlantic division.

Butter Production in 1899 and 1889.—Table CLXXV presents a complete statement of the production of butter on farms and in factories, as reported in 1890 and 1900.

TABLE CLXXV.—POUNDS OF BUTTER PRODUCED IN 1899 AND 1889 ON FARMS AND IN FACTORIES, WITH PER CENT OF INCREASE, BY GEOGRAPHIC DIVISIONS.

A.—TOTAL FARM AND FACTORY PRODUCTS.

GEOGRAPHIC DIVISIONS.	1899	1889	Per cent of increase.
The United States	1,491,871,673	[1]1,205,547,384	23.8
North Atlantic	326,018,546	295,033,716	10.4
South Atlantic	92,883,312	80,414,839	15.5
North Central	810,841,697	650,551,588	23.7
South Central	186,856,187	135,302,951	38.1
Western	75,152,860	44,205,290	69.9
Alaska and Hawaii	119,071	.....	.....

B.—FARM PRODUCT.

The United States	1,071,745,127	1,024,223,468	4.6
North Atlantic	206,284,451	246,788,544	[2]16.0
South Atlantic	89,111,226	78,270,911	13.8
North Central	539,104,750	520,625,636	3.5
South Central	185,923,330	135,192,272	37.5
Western	51,202,299	43,346,105	18.1
Alaska and Hawaii	119,071	.....	.....

C.—FACTORY PRODUCT.

The United States	420,126,546	181,284,916	131.7
North Atlantic	119,734,095	48,245,172	148.2
South Atlantic	3,772,086	2,143,928	75.9
North Central	271,736,947	129,925,952	109.1
South Central	932,857	110,679	699.0
Western	23,950,561	859,185	2,684.2
Alaska and Hawaii	.....	.....	.....

[1] Including 39,000 pounds not specifically reported by states. [2] Decrease.

A decrease in butter produced on farms is shown for the North Atlantic division, and an increase for the South Atlantic, North Central, and Western divisions. The factory production shows an increase for all divisions, as does the combined product. The increase in the latter for the whole country was 286,324,289 pounds, or 23.8 per cent, while the increase in the population was only 21.8 per cent.

Table CLXXVI presents a statement of cheese production on farms and in factories as reported in 1890 and 1900.

TABLE CLXXVI.—POUNDS OF CHEESE PRODUCED IN 1899 AND 1889 ON FARMS AND IN FACTORIES, WITH PER CENT OF INCREASE, BY GEOGRAPHIC DIVISIONS.

A.—TOTAL FARM AND FACTORY PRODUCTS.

GEOGRAPHIC DIVISIONS.	1899	1889	Per cent of increase.
The United States	298,344,654	[1]256,761,883	16.2
North Atlantic	148,218,271	139,238,694	6.4
South Atlantic	593,308	415,291	42.9
North Central	133,946,093	110,225,861	21.5
South Central	654,909	349,667	87.3
Western	14,932,061	6,519,870	129.0
Alaska and Hawaii	12	.....	.....

B.—FARM PRODUCT.

The United States	16,372,330	18,726,818	[2]12.6
North Atlantic	4,509,199	6,693,671	[2]32.6
South Atlantic	480,448	271,291	77.1
North Central	5,320,122	6,669,421	[2]20.2
South Central	473,440	318,367	48.7
Western	5,589,109	4,774,068	17.1
Alaska and Hawaii	12	.....	.....

C.—FACTORY PRODUCT.

The United States	281,972,324	238,022,565	18.5
North Atlantic	143,709,072	132,545,023	8.4
South Atlantic	112,860	144,000	[2]21.6
North Central	128,625,971	103,556,440	24.2
South Central	181,469	31,300	479.8
Western	9,342,952	1,745,802	435.1
Alaska and Hawaii	.....	.....	.....

[1] Including 12,500 pounds not specifically reported by states. [2] Decrease.

This table shows a decrease in farm production for the North Atlantic and North Central states, an increase in the South Atlantic, South Central, and Western divisions, and a gain in the factory product in all parts of the country except the South Atlantic division, and a gain in the combined products of farm and factory in each division.

HORSES.

INTRODUCTION OF HORSES INTO THE UNITED STATES.

The history of the horse in America really begins in 1493, when Columbus, on his second voyage, introduced this animal into the West Indies. The first horses in what is now the United States were landed in Florida in 1527. The horses used by De Soto on his western journey and abandoned by him were undoubtedly the progenitors of the wild horses of the Southwest. In 1604 French horses were introduced into Acadia; in 1609 English horses were landed at Jamestown, Va., and in 1623 horses of Dutch origin were brought to New York. Massachusetts received its first consignment in 1629.

At one time in the history of the colonies, horses became so cheap that little attention was paid to breeding, and the deterioration in size which followed became an